

MEMORANDUM

DATE: January 22, 2013
TO: Interested Parties
FROM: William E. Hamilton
RE: State Transportation Borrowing and Debt Service

This memo updates previous memos on state transportation borrowing and debt service based on actual debt service expenditures and bonded debt balances through September 30, 2012.

Authority for Transportation Bond Program

Article IX, Section 9 of Michigan's 1963 Constitution mandates that revenue from specific taxes on motor fuels and vehicle registrations be used exclusively for transportation purposes. The section also states that, "*The legislature may authorize the incurrence of indebtedness and the issuance of obligations pledging the taxes allocated or authorized to be allocated under this section, which obligations shall not be construed to be evidence of state indebtedness under this constitution.*" This language gives constitutional authorization for debt secured by constitutionally-restricted transportation revenue, and indicates that transportation notes and bonds issued under the authority of the section are not general obligations of the state of Michigan.

This constitutional authority is put into effect in statute by 1951 PA 51 (Act 51) which authorizes the State Transportation Commission to issue notes or bonds by pledging as payment constitutionally-restricted transportation revenue. Act 51 also authorizes the State Transportation Commission to issue notes or bonds in anticipation of federal revenue, and authorizes the refunding of previously issued bonds.

Section 18b of Act 51 requires that the State Transportation Commission, prior to issuing notes or bonds, adopt a resolution providing a pledge of payment of the notes or bonds from constitutionally-restricted transportation revenue. Section 18b also requires that the resolution contain a brief statement describing the projects for which the notes or bonds are to be issued, including estimated cost of the projects, or a description of the notes or bonds to be paid or refunded from the proceeds.

Section 18k of Act 51 requires that the State Transportation Commission provide to the House and Senate Appropriations Committees the list of projects for which notes or bonds are to be issued at least 30 days before the notes or bonds are issued. If the State Transportation Commission determines that the projects for which bonds were issued should change, Section 18b(4) requires that the Commission adopt the change by resolution, and that notice of intention to adopt the resolution be given to the House and Senate Appropriations Committees. Although Act 51 includes these notification provisions, the act does not require legislative authorization for the State Transportation Commission to issue notes or bonds, and does not give the appropriations committees or legislature as a whole authority to approve or reject the proposed project list.

Proceeds from the sales of notes or bonds can be used only for projects included in the note or bond resolution project list. However, the proceeds are not earmarked for any particular project or projects on the list. Some of the projects on the list may be constructed using other state-restricted or federal-aid revenue sources; some may not be constructed at all. Projects on the bond project list simply represent the pool of projects for which the bond proceeds may be used.

- ¹ These STF and CTF debt service coverage ratios are estimates as shown in disclosure tables in 2012 and 2011 bond statements. Actual debt service coverage for FY 2011-12 will not be known until year-end book closing is complete.
- ² In accordance with State Transportation Commission policy adopted August 26, 1999, the department adopted capital financing guidelines. Those guidelines require that restricted revenue must be at least four times annual debt service. The guidelines also require that bonds only for capital projects, infrastructure and equipment, and require the department to make every effort to ensure that the average life of bonds not exceed the average life of the capital financed projects.
- ³ At the time the department issued the GARVEE notes, it anticipated that the state would receive additional authority Act: A Legacy for Users (SAFETEA-LU). In 2005, the department issued STF bonds to refinance \$400.0 million in short-term GARVEE notes.
- ⁴ The breakdown of the 2011 STF bond issue between Blue Water Bridge projects and STF programming total more than the face value of the bond issue. Because of issue premiums, actual bond proceeds totaled \$101.6 million.

- \$200.0 million in GARVEE notes (September 2002)
 - \$185.7 million STF bonds (September 2004)
 - \$244.5 million in STF bonds (July 2006)
 - \$485.1 million jobs Today GARVEE bonds (September 2007)
 - \$281.9 million jobs Today/Economic Stimulus Build America Bonds (June 2009)
 - \$91.0 million STF Bonds (December 2011)
 - \$61.0 million for Blue Water Bridge projects,
 - -\$40.0 million STF to match federal aid,
- and note issues – not including refunding bond issues:

Outstanding STF debt doubled between September 30, 2000 and September 30, 2001 – from \$633.2 million to \$1,328 billion. Of this increase, \$308.2 million related to the sale in July 2001 of Build Michigan III bonds. At the same time, the department sold \$400.0 million in short-term federal grant anticipation notes (GARVEEs). Since 2001, the department has offered the following new STF bond

and note issues – not including refunding bond issues:

Summary of Recent Transportation Bonding History

State Transportation Commission policy is more restrictive than statute; it requires a 4-to-1 revenue to debt service coverage ratio.²

Act 51 limits transportation-related debt service to 50% of the previous year's constitutionally-restricted transportation revenue. Or to state this another way, transportation revenue pledged to secure bonds or notes must be at least twice the amount of the related transportation debt service. Current debt service is below these statutory limits. For the fiscal year ending September 30, 2012, available State Trunkline Fund (STF) revenue was estimated to be 4.3 times the amount needed to cover STF debt service, and available Comprehensive Transportation Fund (CTF) revenue 10.3 times the amount needed to cover CTF debt service. Federal aid appportioned to Michigan in FY 2011-12 was expected to be 4.78 times the amount needed to cover federal grant anticipation bond debt service.¹

The Commission first authorizes the Michigan Department of Transportation to circulate a preliminary official note or bond statement, including the list of projects. In a subsequent resolution, after the 30-day notification period, the Commission will authorize the department to issue the notes or bonds up to the amount authorized in the resolution. The department will time the actual sale of the debt issue based on anticipated cash flow needs and on market conditions.

As of September 30, 2012, total outstanding STF debt was \$2.046 billion, of which \$741.5 million was related to federal grant anticipation bonds.

The department has indicated that there are several reasons for recent bonding programs. Bonding allows the department to advance projects which could be more costly to build in the future due to construction price inflation. By advancing projects, the economic benefits of improved transportation facilities are realized sooner. In addition, advancing projects serves as a stimulus to the state economy. The recent transportation bond program has taken advantage of historically low interest rates.

Although current debt service is well within statutory limits, there has been concern that future debt service obligations could affect the department's ability to sustain its road and bridge program. Bonding has helped the department "frontload" the road and bridge reconstruction program, and helped the department reach its pavement performance goal of 90% state trunkline pavement in "good" condition by 2007. However, the department has indicated that "existing investment level will not sustain that condition." Anticipated reductions in the state trunkline road and bridge reconstruction program are due, in part, to increased debt service claims on STF revenue, coupled with flat or falling transportation revenues.⁵

Current Debt Service and Interest Rates

As STF debt began to increase, debt service also increased – from \$47.2 million in FY 2000-01 to \$187.6 million in FY 2005-06. Over the last three fiscal years (FY 2009-10 through 2011-12) STF debt service averaged over \$215 million. STF debt service will be approximately \$215 million for FY 2012-13 and \$219 million per year from 2014 through 2020.⁶

Excluding taxable Build America Bonds issued in 2009, the average interest rate on STF bonds ranges from 4.13% to 5.76%. Of the ten bond series issued by the department since 2000, all but one has an average interest rate of 5.00% or less.⁷

The department, in accordance with State Transportation Commission policy, looks to refund (i.e. refinance) debt when it can achieve a present value savings of 3% or more.

Transportation Debt and Debt Service History

The tables and charts on the following pages show the history of state transportation debt and debt service from FY 1994-95 through FY 2012-13. The outstanding note and bond amounts through FY 2011-12 are taken from the department's annual financial reports. The debt service amounts through FY 2011-12 are based on actual debt service payments as recorded in the state's accounting system. Debt service amounts for FY 2012-13 reflect budgeted amounts based on anticipated debt service schedules.

⁵ Source: MDOT's five-year (2010-2014) transportation program.

⁶ This anticipated debt service is based on MDOT debt service schedules updated in 2012. Debt service includes debt service on federal grant anticipation bonds.

⁷ As described more fully in the Summary of Recent Bond Issues on subsequent pages, in 2009 the department issued Build American Bonds. While the nominal interest rate on these taxable bonds, 7.63%, is higher than other STF bonds, the federal government reimburses the department 35% of the annual interest payment made to bondholders.

State Trunkline Fund - Figures 1 and 2

State Trunkline Fund bonds and notes are used to provide funds for state trunkline road and bridge construction or reconstruction projects. For purposes of the table and chart, STF bonds include bonds issued for Transportation Economic Development Fund (TEDF) projects, the Blue Water Bridge program projects - as well as state trunkline construction projects. The TEDF, Blue Water Bridge Program projects also include debt secured by anticipated federal revenue, i.e., "GARVEE" notes and bonds.

securer by STF revenue. The tables and charts also include debt secured by anticipated federal revenue, i.e., "GARVEE" notes and bonds.

Figure 1
**State Trunkline Fund
 Outstanding Debt**

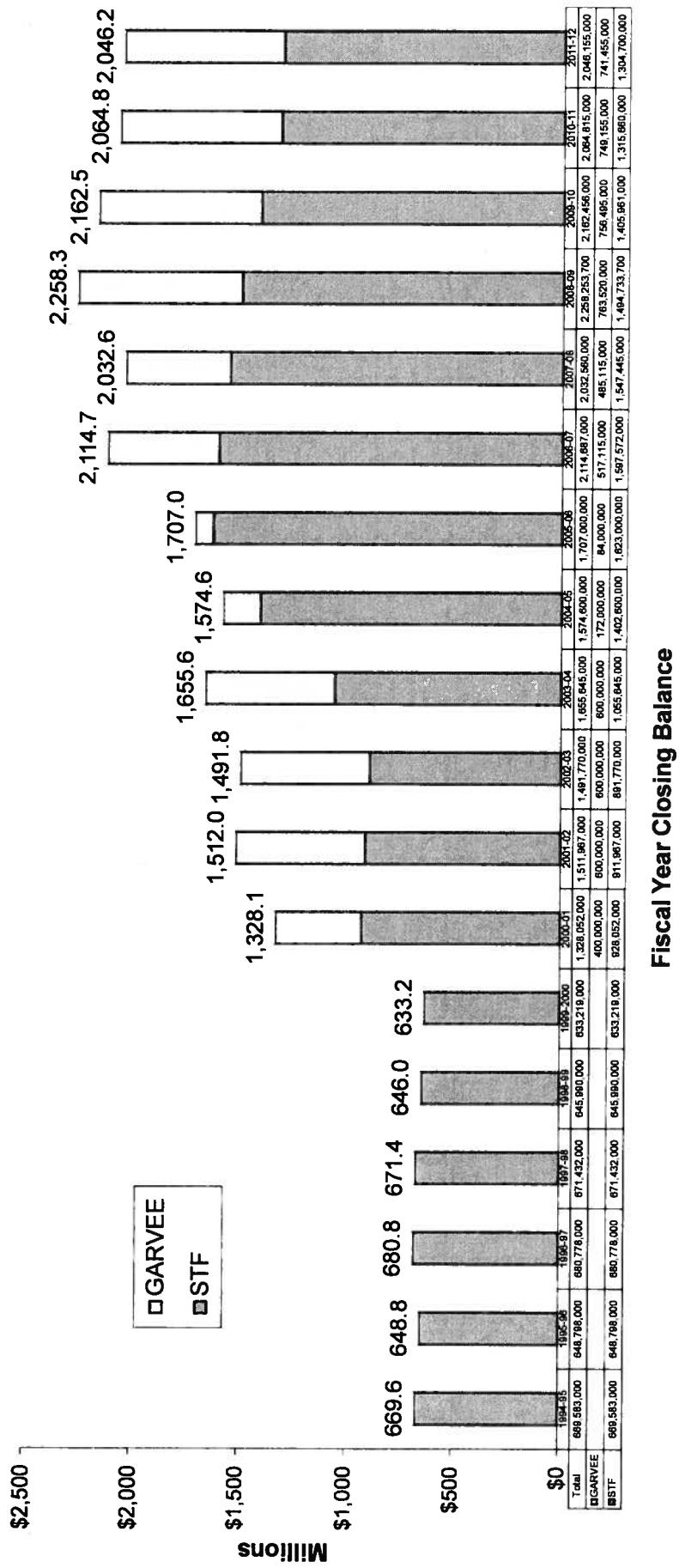
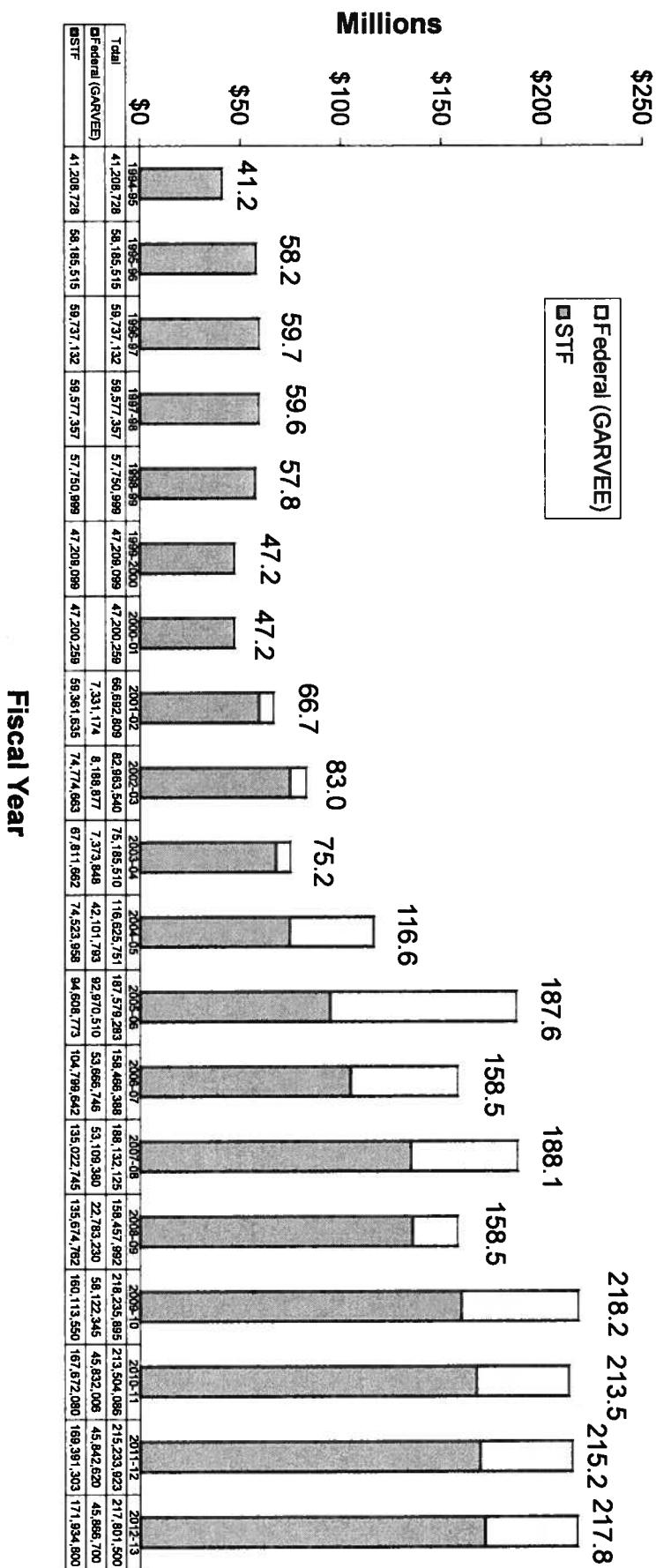


Figure 2
State Trunkline Fund
Debt Service



Comprehensive Transportation Fund – Figures 3 and 4

Comprehensive Transportation Fund bonds are used to fund public transportation capital projects, including the purchase of buses for transit agencies, construction of bus transit and intermodal terminals, and rail passenger and rail freight projects. CTF bond proceeds have also been used to support certain airport improvement projects.

Figure 3
Comprehensive Transportation Fund Outstanding Debt

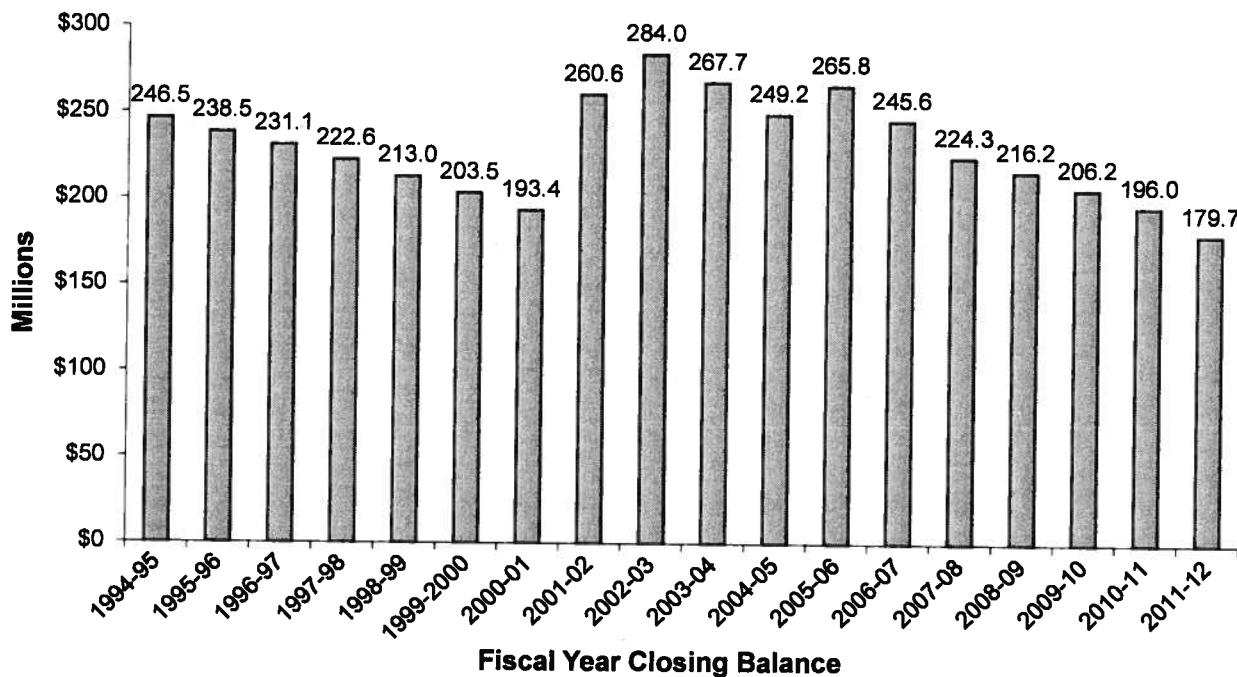
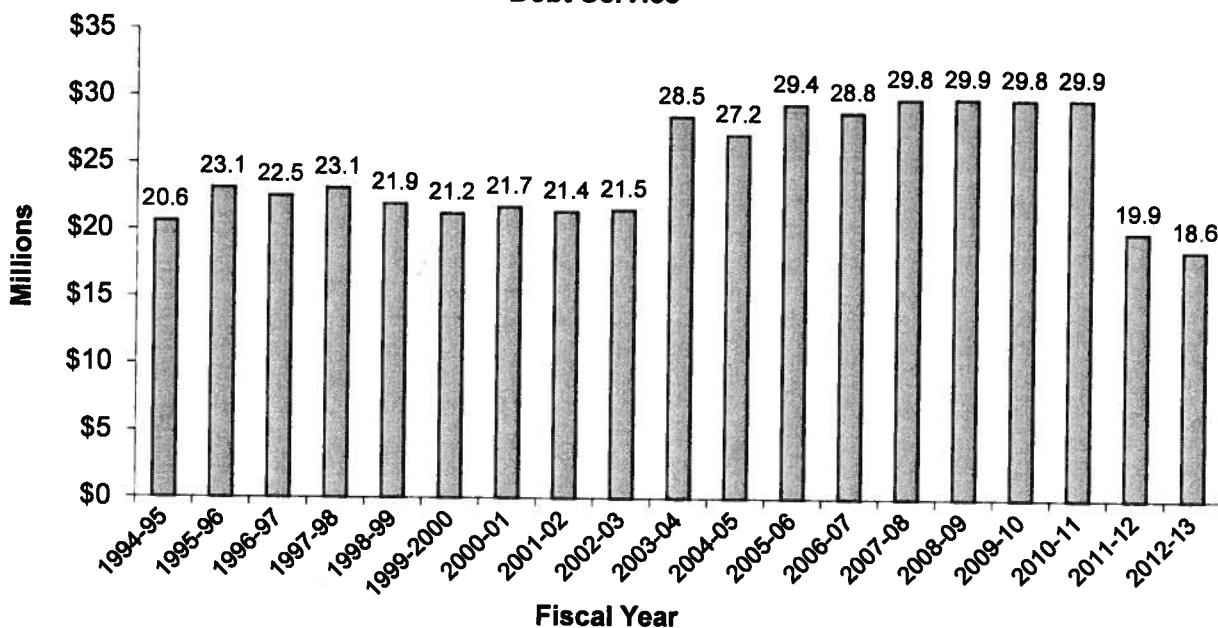


Figure 4
**Comprehensive Transportation Fund
Debt Service**



⁹ Debt service for the Build Michigan III bond program was to have come, in part, from an annual \$35 million appropriation from the Budget Stabilization Fund (BSF) for a sixteen-year period beginning in FY 2000-01 and ending in FY 2015-16. The \$35 million BSF transfer was made for the first two fiscal years, but was suspended in FY 2002-03 because of a proposed increase in the diesel motor fuel taxes. The proposed diesel tax per year was to have come from a proposed increase in GF/GP revenue and the depletion of the BSF. In addition, \$8.0 million was proposed to have come from the state's general fund to pay for the proposed increase in the diesel motor fuel taxes. The proposed increase was not enacted.

⁸ Under this program, the department purchased right of way in advance of the completion of early preliminary engineering and environmental clearance. The department subsequently discontinued the use of the advance purchase of right of way account. Use of advance purchase of right of way makes the entire project ineligible for federal aid. Cost savings achieved in purchasing right of way prior to final highway alignment are offset by the loss of federal project participation.

2001 - \$400,000,000 GARVEE Notes

The state pledged anticipated revenue from the federal aid highway program to secure repayment of projects (Build Michigan II). These were considered short term notes (less than 10 year maturity). These notes, issued in July 2001, were issued to accelerate previously programmed state trunkline these notes. Additional GARVEE notes were issued in 2002.

2001 - \$308,200,000 STF Build Michigan III Bonds

These bonds, issued in July 2001, were intended to be the first phase of the Build Michigan III bond program, involving a number of state reconstruction and capacity improvement projects, as well as local economic development projects. The State Transportation Commission had authorized up to \$900.0 million in borrowing under the Build Michigan III program. However, no additional bonds were issued under this program.

1998 - STF and CTF Refunding Bonds

\$377.9 million STF and \$38.6 million CTF to refinance previously issued bonds.

1996 - \$55,000,000 STF Bonds

\$35.0 million was used to finance, in part, Blue Water Bridge projects including construction of the second span and rehabilitation of the original span; \$20.0 million was used to advance purchase of the Blue Water Bridge projects. The total Build Michigan bond issue was \$353.2 million, of which \$253.6 million was "new money". The balance of the bond proceeds was used to refund existing debt. At the same time, the department issued \$37.7 million in CTF obligation bonds.

1992 - \$253,618,067 STF Build Michigan Bonds

Primarily used to match federal funds for state trunkline projects. In addition, approximately \$30.0 million of the bond proceeds was used for local Critical Bridge projects. The total Build Michigan bond issue was \$353.2 million, of which \$253.6 million was "new money". The balance of the bond proceeds was used to refund existing debt. At the same time, the department issued \$30 million in CTF obligation bonds.

1989 - \$135,779,506 STF Bonds

In addition to the funds used for TEDF projects, approximately \$30 million from the original bond proceeds was used for state trunkline right-of-way projects.

Summary of Recent Bond Issues

Used primarily to finance a number of state and local economic development (TEDF) projects which involved the upgrading of local roads and jurisdictional transfers to the state. Includes projects which reconstruction in Detroit, and upgrading the Capital Loop in Lansing.

Approximately 38% of the funds were used for state trunkline projects - 59% if one includes projects primarily to finance a number of state and local economic development (TEDF) projects.

2001 – CTF Refunding Bonds

In July 2001, at the same time the department issued the *Build Michigan III* bonds and GARVEE notes, it refinanced \$27.8 million in CTF bonds.

2002 – \$82,310,000 CTF Bonds

On July 19, 2002, the State Transportation Commission authorized the sale of up to \$160.0 million in CTF bonds. Bonds were issued in August 2002 for a number of public transit capital projects, including rail freight track rehabilitation projects, local public transportation bus and facility projects, intermodal terminal projects, and rail passenger projects. The State Transportation Commission-approved bond project list identified \$88.5 million in various CTF projects, plus \$60.0 million for various ASAP airport safety and security projects.¹⁰ However, none of the proceeds were used for ASAP projects, and no additional CTF bonds were issued under this authorization. As described further below, the department issued bonds for the ASAP program in 2003 under a separate authorization from the State Transportation Commission. The approved project list was last revised by the State Transportation Commission at its July 29, 2010 meeting.

2002 – \$200,000,000 GARVEE Notes

On September 19, 2002, the department issued an additional \$200.0 million in short-term federal-aid grant anticipation notes intended to accelerate previously programmed state trunkline projects (*Build Michigan II*). This was the second series of notes issued under this program bringing total GARVEE borrowing to \$600.0 million. In 2005 the department converted a large part of the short-term GARVEE notes into longer-term STF bonds (see below). The final payment on the remaining short-term notes, \$32.1 million, was made in FY 2007-08.

2002 – CTF and STF Refunding Bonds

In May 2002, the department sold \$89.6 million in CTF refunding bonds. The total proceeds (including premium) refinanced \$95.6 million in CTF bonds. In August 2002, the department sold \$97.9 million in STF refunding bonds. The total proceeds (including premium) totaled \$104.5 million.

2003 – \$35,020,000 CTF/ASAP Bonds

In April 2003, the State Transportation Commission authorized the sale of up to \$38.0 million in CTF bonds. The approved bond list was identical to the one approved in 2002 – \$88.5 million in various CTF bond projects and \$60.0 million for ASAP airport improvement projects. The department sold \$35.0 million in CTF bonds in July 2003 (\$36.4 million net proceeds). The department identified \$24.0 million from the bond proceeds as related to the ASAP program. The approved project list was last revised by the State Transportation Commission at its July 29, 2010 meeting.

In 2006, the department sold additional CTF bonds under a separate authorization, of which \$36.0 million was identified as for the ASAP program. See below for additional description.

2004 – \$185,710,000 STF Bonds

At its October 30, 2003 meeting, the State Transportation Commission approved a preliminary resolution regarding the sale of up to \$480.0 million in new STF bonds. The Commission gave final approval for the issuance of these bonds on July 29, 2004. The bond list identified a total of 125

¹⁰ ASAP represents the "Airport Safety and Protection Plan," a bond program funding airport safety and security projects. The bond project list identified \$60.0 million in ASAP bond program funds. Total ASAP project costs, including federal, local, and other state revenue, totaled approximately \$1.1 billion.

Although ASAP debt service is shown as State Aeronautics Fund (SAF) in the transportation appropriations acts, the bonds are guaranteed with CTF revenue; the State Transportation Commission has no constitutional or statutory authority to issue bonds secured with SAF revenue. The SAF revenue for the debt service reimbursement was guaranteed through an earmark of certain Airport Parking Tax revenue made in Public Act 680 of 2002 (House Bill 4454) and Public Act 135 of 2006 (House Bill 5154).

The authorization was amended September 28, 2006, to include up to \$192.0 million for a local federal-aid loan program, part of the Local Jobs Today program. Under this program, the department loaned money to local road agencies to allow for the construction of local federal-aid projects in 2006 and 2007 which would otherwise have been postponed. The local road agencies were to repay the loans from future federal aid. This financing method is also called "advantage constructs." All loans to local road agencies under this program were fully repaid in early FY 2010-11 when remaining federal aid became available.

On January 26, 2006, the State Transportation Commission approved a preliminary resolution for the sale of up to \$630.0 million in STF bonds or GARVEE bonds as part of the Jobs Today program. The related project list totaled \$796.7 million.

2006/2007 - \$485,115,000 Jobs Today GARVEE Bonds

This represented the second and final part of the \$480.0 million bond issue first authorized in 2004. In July 2006, the department issued \$244.5 million in STF bonds (proceeds totaled \$261.5 million). The original 2004 STF bond issue described above.

On March 30, 2006, the State Transportation Commission authorized the sale of up to \$100 million in CTF bonds. As part of this sale, the department identified \$36.0 million as the second and final part of CTF bonds. On June 30, 2006, the State Transportation Commission authorized the sale of up to \$100 million in STF bonds, and \$223.0 million in STF refunding bonds (\$250.0 million total proceeds), and \$378.2 million in CTF refunding bonds (\$70.0 million total proceeds).

In April 2005, the department issued \$62.2 million in CTF refunding bonds (\$400.0 million total proceeds), and \$250.0 million in STF refunding bonds (\$250.0 million total proceeds).

On June 30, 2005, the State Transportation Commission authorized the department to restructure up to \$400.0 million in short-term GARVEE notes with STF bonds. In August 2005, the department issued \$378.2 million in STF bonds. From the proceeds of this sale, which totaled \$402.1 million including issue premium, \$400.0 million was used to refund GARVEE notes.

In April 2004, the department sold \$103.5 million in STF refunding bonds. The total proceeds (including premium) totaled \$133.2 million.

2004 - STF Refunding Bonds

The State Transportation Commission revised the associated project list at its September 28, 2006 meeting to include certain local projects as part of the \$80 million Local Jobs Today grant program. The use of STF bond proceeds for local road agency grants was authorized by Public Act 141 of 2006 (House Bill 6003) which amended Act 51 of 1951. The project list related to this bond issue was last amended by the State Transportation Commission at its April 30, 2009 meeting.

In September 2004, the department issued \$185.7 million in bonds, (\$201.2 million including premium to issue date) as part of the authorized bond sale. An additional sale under this authorization was made in July 2006.

Three capacity improvement projects on the list: M-24 in Lapeer County, I-96 at 36th Street in Kent County, and M-42 in Wexford County.

Note that there were two parts of the *Local Jobs Today* program: the local advance-construct loan program using the STF or GARVEE bond proceeds to be issued under this 2006 authorization; and the \$80 million local federal-aid grant program authorized under the revised project list for the 2004 STF bonds.

In September 2007, the department sold \$485.1 million in GARVEE bonds under this authorization. The total proceeds from the sale, including premium, totaled \$503.8 million.

Note: At its March 27, 2008 meeting, the State Transportation Commission also approved a preliminary resolution regarding the sale of up to \$150.0 million in new STF or GARVEE bonds. This proposed bond issue was related to Governor Granholm's *Economic Stimulus* program which would advance \$150.0 million projects originally slated from construction in 2009 into the 2008 construction season. As noted below, the department sold grant anticipation bonds under the *Jobs Today/Economic Stimulus* authorizations in 2009.

2009 – \$281,910,000 STF *Jobs Today/Economic Stimulus* Build America Bonds

In June 2009, the department sold \$281.9 million of federal "Build America Bonds." These were a new type of grant anticipation bond; Build America Bonds were authorized under provisions of the American Recovery and Reinvestment Act of 2009. Debt repayment was secured by anticipated revenue from the federal-aid highway program.

Unlike other bonds issued by the department, Build America Bonds are not tax-exempt. As a result, the nominal interest rate on the bonds is higher than other department-issued bonds. However, under provisions of the Build American Bond program, the department will receive an interest rebate from the Internal Revenue Service equal to 35% of the annual interest payment made to bondholders. Of the \$21.5 million in annual scheduled debt service, the anticipated annual IRS rebate amount is \$7.5 million.

The department indicated that \$138 million of the bond proceeds related to the *Jobs Today* program, and \$150 million was for the *Economic Stimulus* program. After issue discount, the actual proceeds from the bond issue totaled \$280.0 million.

2009 – \$42,335,000 CTF Refunding Bonds

In January 2008, the State Transportation Commission authorized the sale of up to \$70 million in CTF refunding bonds. The authorization was amended in August 2008.

In May 2009, the department sold \$42.3 million in CTF bonds. The sale proceeds, including issue premium, totaled \$44.6 million. The proceeds from this issue were used to retire previously issued CTF bonds, reducing total CTF debt service by approximately \$41 million over three fiscal years – FY 2008-09 through FY 2010-11. Because of the nature of the refunding, the *appropriation* for debt service during those years was not reduced. According to IRS regulations the CTF debt service savings was instead transferred to a CTF bond proceeds account for subsequent expenditure on public transportation capital projects. This debt service treatment, i.e. the appropriation and subsequent transfer to a CTF Bond proceeds account, was recognized in three fiscal years as follows: FY 2008-09, \$15,377,500; FY 2009-10, \$12,758,400; FY 2010-11, \$13,167,700.

2009 – \$146,190,000 in STF New and Refunding Bonds

In January 2008, the State Transportation Commission authorized the sale of up to \$290.0 million in STF refunding bonds. The authorization was amended March, 27, 2008. In November 2009, the department sold \$146.2 million in STF bonds. The sale proceeds, including issue premium, totaled \$155.5 million. The proceeds from this issue were primarily used to retire previously issued STF bonds; \$4.0 million of the proceeds were used to finance state trunkline projects.

2012 - \$49,305,000 in STF Refunding Bonds

On May 17, 2012, the State Transportation Commission authorized the sale of up to \$60 million in STF refunding bonds. In July 2012, the department sold \$49.3 million in STF bonds. The sale proceeds, including issue premium, totaled \$58.0 million. The proceeds from this issue were used to retire previously issued STF bonds.

Of the 29 projects on the project list, two were related to the certain phases of the Blue Water Bridge Plaza Project. Specifically, \$1.7 million was for the replacement of the Welcome Center near on I-94/I-69, related interchange, and \$61.0 million was related to the reconstruction and widening of I-94/I-69 near the Blue Water Bridge, and \$40.0 million was for the replacement of the Blue Water Bridge toll plaza. The use of \$40.0 million would be used to match federal funds for state trunkline projects. The department indicated that \$40.0 million of this would be used to match federal funds for state trunkline projects. The use of \$40.0 million in bond financing to match federal funds had been part of the FY 2010-11 budget agreement with the legislature. However, the actual sale was not made until December 2011, during the 2011-12 fiscal year. The project list included 29 trunkline projects with estimated state share of costs totaling \$106.2 million.

The October 2011 project list associated with this bond issue included 29 trunkline projects with estimated state share of costs totaling \$106.2 million. The October 2011 project list associated with this bond issue included 29 trunkline projects with estimated state share of costs totaling \$106.2 million.

2011 - \$90,980,000 in STF Bonds

On March 31, 2011, the State Transportation Commission authorized the sale of up to \$105 million in STF bonds. The authorization was amended October 27, 2011, to increase the authorization to \$145 million. In December 2011, the department sold \$91.0 million in STF bonds under this authorization. The sale proceeds, including issue premium, totaled \$101.6 million.

2011 - \$18,470,000 in CTF Refunding Bonds

On August 25, 2011, the State Transportation Commission authorized the sale of CTF refunding bonds. In November 2011, the department sold \$21.0 million. The proceeds from this issue were used to retire including issue premium, totaling \$18.5 million. The sale proceeds from this issue were used to retire bonds. The sale of CTF refunding bonds, including issue premium, totaled \$21.0 million.

Figure A

Michigan's Transportation Budget - FY 2012-13

Article XVII, 2012 PA 2000

Summary by Appropriated Fund Source

State-Restricted Funds	\$2,165,645,300	62.5%
Federal Funds	1,221,830,100	35.2%
Local/Private/Other Funds	55,712,100	1.6%
General Fund/General Purpose	23,000,000	0.7%
Gross Appropriations	\$3,466,187,500	100.0%

Michigan's Transportation Budget FY 2012-13

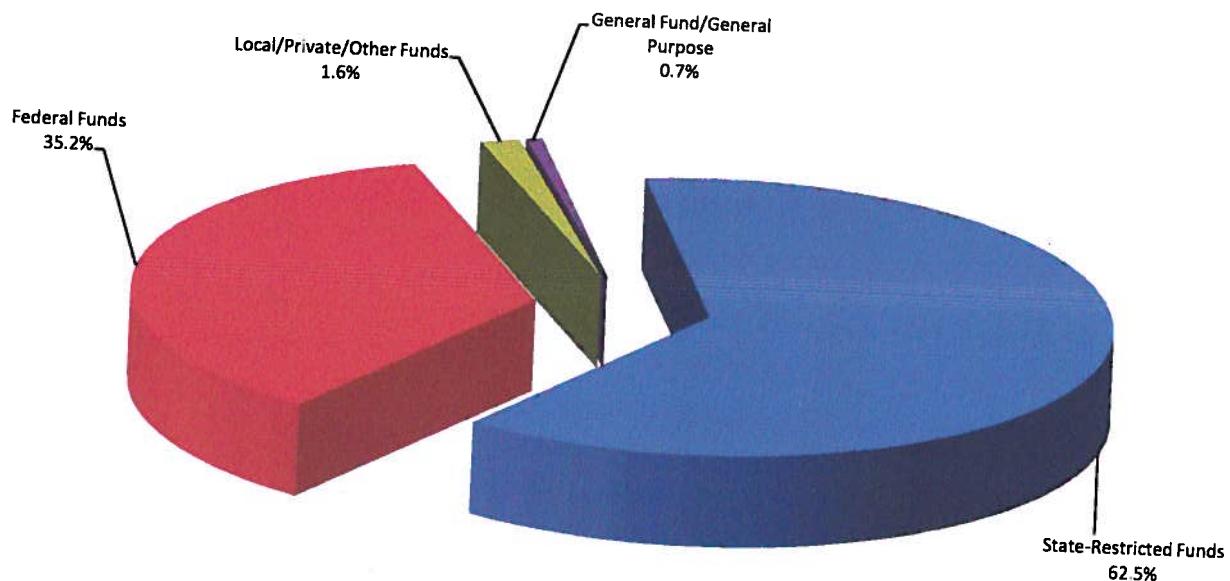
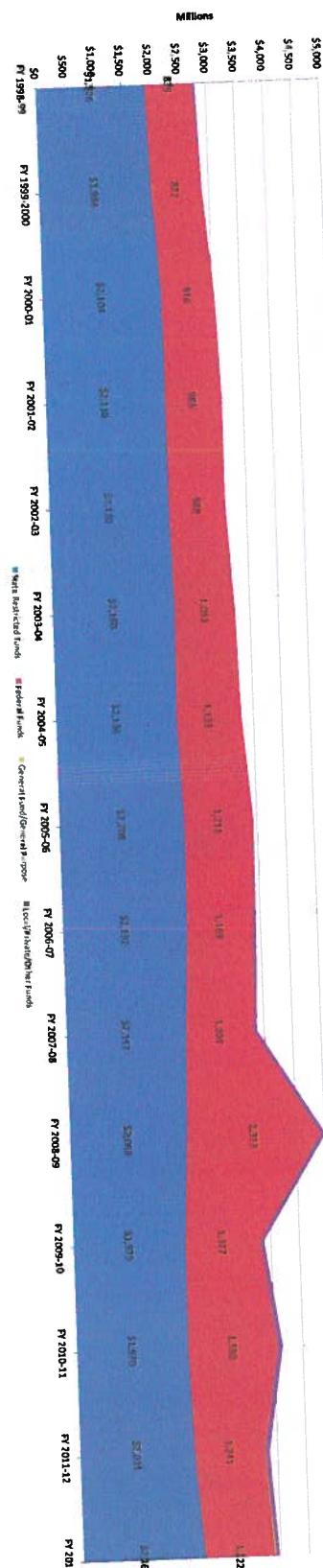


Figure B

Michigan's Transportation Budget

Fifteen Year History

	FY 1998-99 through 2012-13 YTD	FY 2000-01	FY 2001-02	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	
State Restricted Funds	\$1,935,319,100	\$1,982,965,200	\$2,103,971,100	\$2,110,282,600	\$2,119,655,300	\$2,160,252,600	\$2,135,687,900	\$2,139,012,700	\$2,116,605,000	\$2,058,909,200	\$1,978,578,000	\$1,965,724,400	\$2,030,855,700	\$2,155,645,300	
Federal Funds	839,337,100	877,732,000	935,289,625	985,283,900	987,986,100	1,053,986,900	1,132,701,200	1,210,659,300	1,168,679,700	1,200,406,000	2,373,246,800	1,356,578,900	1,589,765,000	1,241,195,200	1,221,830,100
Local/Private/Other Funds	34,665,500	16,209,500	16,282,500	17,759,500	5,800,000	5,800,000	6,100,000	47,500,000	42,850,000	71,574,200	56,453,400	77,837,900	73,886,300	55,712,100	55,712,100
General Fund/General Purpose															
Gross Appropriations	\$2,800,322,800	\$2,971,906,700	\$3,056,473,225	\$3,112,225,000	\$3,113,421,400	\$3,219,150,200	\$3,274,319,100	\$3,424,916,200	\$3,460,192,400	\$3,390,195,600	\$4,512,880,200	\$3,361,611,100	\$3,637,328,300	\$3,346,437,200	\$3,465,187,500



Notes:
The above table and graph show YTD appropriated funds in annual state transportation budgets including transfers and supplemental appropriations.

The amounts shown for FY 2012-13 represent the budget enacted as Article XVII, 2012 PA 2012.
The increase in federal funds in FYs 2009-10 and 2010-11 was due to funds provided through the American Reinvestment and Recovery Act of 2009 (ARRA), as follows:

Fiscal Year	Appropriated	ARRA Funds
FY 2008-09	\$912,251,000	\$912,251,000
FY 2009-10	\$95,834,400	\$95,834,400
FY 2010-11	\$202,705,700	\$202,705,700
Total	\$1,210,792,100	

The Local/Private/Other and General Fund/Federal Purpose amounts are too small to display on the graph.

Figure C1

Michigan's Transportation Budget - FY 2012-13

Sources of Transportation Revenue

Based on Treasury Estimate (2/9/12)

State \$.19/gal Gasoline Tax	825,500,000	(¹)
Less Recreation Improvement Fund	(16,460,000)	(²)
Gasoline Tax Subtotal	809,040,000	
State Diesel Fuel Taxes	128,500,000	
LP Gas Tax	350,000	
Vehicle Registration Taxes	908,690,000	
Interest/Other	2,613,000	
Michigan Transportation Fund Subtotal	1,849,193,000	85.39% % of State Restricted Rev.
Auto-Related Sales Tax	88,000,000	
Drivers' License Fees	12,000,000	
Transfer from Sales Tax to STF	100,000,000	
Transfer from Sales Tax to SAF	10,000,000	
Miscellaneous, Interest, Other	106,452,300	
Appropriated State Restricted Revenue	2,165,645,300	62.48% % of Total Rev.
Interdepartmental Grants	3,531,900	0.10%
Federal Funds	1,221,830,100	35.25%
Local/Private Funds	52,180,200	1.51%
General Fund/General Purpose	23,000,000	0.66%
Total Appropriated Revenue	\$3,466,187,500	100.00%

Notes

1. Each 1-cent of the gasoline excise tax will generate \$43.4 million in revenue in FY 2012-13.
2. 2% of gasoline excise taxes are appropriated to the Recreation Improvement Fund.

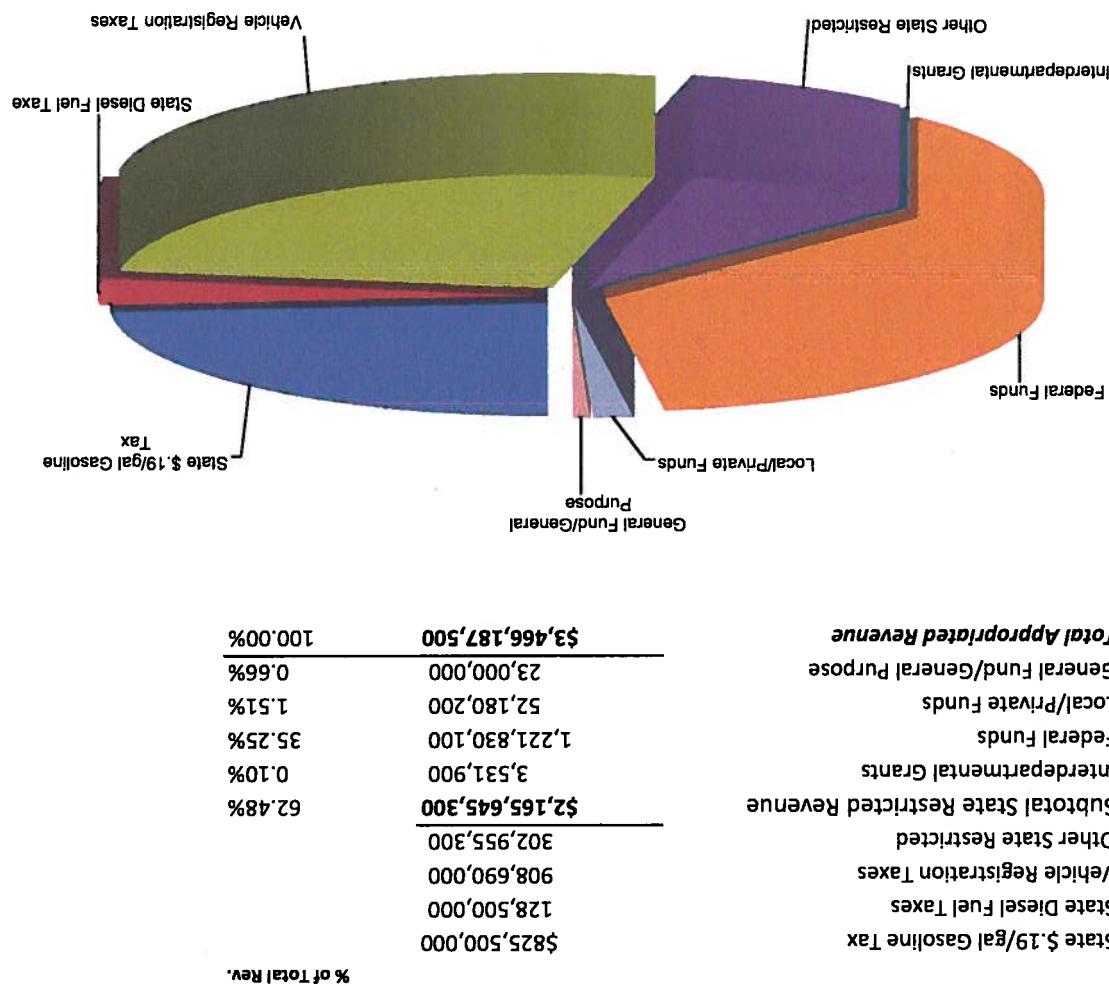


Figure C2

Figure D1

Michigan's Transportation Budget - FY 2012-13
As Enacted
Summary of Appropriation by Purpose

Purpose	Total	Percent
Debt Service	\$240,274,500	6.93%
Administration/Planning/Collection	300,149,400	8.66%
State Hwy Construction	961,498,000	27.74%
State Hwy Maintenance	273,395,700	7.89%
Local Road Agencies	1,225,721,300	35.36%
Local Bus Operating	189,411,900	5.46%
Other Public Transportation	159,735,000	4.61%
Aeronautics	116,001,700	3.35%
Total	\$3,466,187,500	100.00%

This table shows the breakdown of FY 2012-13 transportation appropriations by purpose.

Figure D2



Figure D3

Transportation Budget - FY 2012-13

As Enacted

Summary of Appropriation by Major Program and State/Local Distribution*

	Total	Highway Programs	Public Transportation	Aeronautics
State Programs	1,822,505,900	1,735,737,900	77,232,100	9,535,900
Local Programs	1,643,681,600	1,239,086,000	292,969,800	111,625,800
Total	\$3,466,187,500	\$2,974,823,900	\$370,201,900	\$121,161,700

*This table shows the breakdown of FY 2012-13 transportation appropriations by major programs and by state/local distribution.

Notes:

In this table "State" refers to programs under control of the Michigan Department of Transportation.
"Local" refers to programs which involve the transfer of funds to local units of government.

- Local units receiving highway program funds include county road commissions, and cities and villages (local road agencies).
- Local units receiving public transportation funds include public transit agencies for local bus capital and operating assistance.

In some cases the classification of appropriations for this table as "state" or "local" is the judgment of the HFA analyst.

Figure D4

Transportation Budget - FY 2012-13

As Enacted

***Breakdown by Purpose/Major Program/State and Local Distribution**

Purpose	Total	Percent	Highway Programs		Public Transportation		Aeronautics	
			State	Local	State	Local	State	Local
Debt Service	240,274,500	6.93%	214,539,800	3,261,700	18,580,400			3,892,600
Adm/ Planning/Collection	300,149,400	8.66%	286,304,400	10,103,000	2,474,600			1,267,400
State Hwy Construction	961,498,000	27.74%	951,498,000					
State Hwy Maintenance	273,395,700	7.89%	273,395,700					
Local Road Agencies	1,225,721,300	35.36%	1,225,721,300					
Local Bus Operating	189,411,900	5.46%						
Other Public Transportation	159,735,000	4.61%						
Aeronautics								
Total	<u>\$3,466,187,500</u>	<u>100.00%</u>	<u>3.35%</u>	<u>\$1,735,737,900</u>	<u>\$1,239,066,000</u>	<u>\$77,232,100</u>	<u>\$292,969,800</u>	<u>8,268,500</u>
								107,733,200
							<u>\$9,535,900</u>	<u>\$111,625,800</u>
							0.28%	3.22%
							3.50%	3.50%
							10.68%	85.82%

***This table shows the breakdown of FY 2012-13 transportation appropriations by purpose, major program, and by state/local distribution**

Notes:

In this table "State" refers to programs under control of the Michigan Department of Transportation.

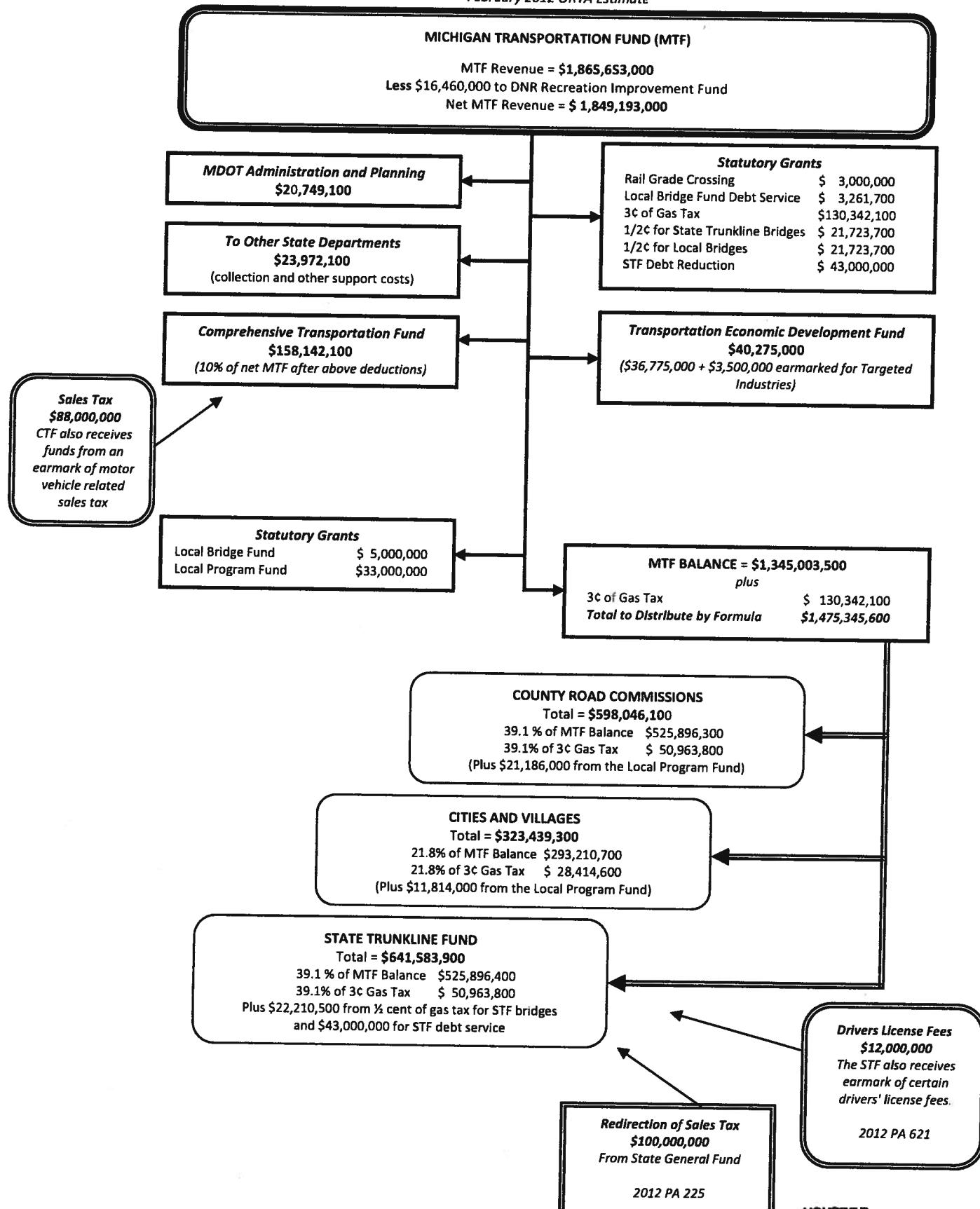
"Local" refers to programs which involve the transfer of funds to local units of government.

Local units receiving highway program funds include county road commissions, and cities and villages (local road agencies).

Local units receiving public transportation funds include public transit agencies for local bus capital and operating assistance.

In some cases the classification of appropriations for this table as "state" or "local" is the judgment of the HFA analyst.

Figure E
**FY 2012-13 MICHIGAN TRANSPORTATION FUND REVENUES AND
 DISTRIBUTIONS PER 1951 PA 51 (Section 10)**
February 2012 ORTA Estimate





MEMORANDUM



DATE: March 5, 2012
TO: Interested Parties
FROM: William E. Hamilton
RE: Michigan's Return on Contributions to the Federal Highway Trust Fund

Background

There are several federal transportation taxes dedicated to federal transportation programs. Those taxes include the 18.4 cent per gallon federal gasoline excise tax, the 24.4 cent per gallon federal diesel tax, federal taxes on other motor fuels, on truck tires, on commercial truck and trailer sales, and on vehicles of over 55,000 Gross Vehicle Weight. Those taxes, which currently generate approximately \$35.0 billion each year, are credited to the Federal Highway Trust Fund – the federal fund used to support federal-aid transportation programs.

The Highway Trust Fund includes both a Mass Transit Account and a Highway Account. The Highway Account supports federal-aid highway programs. The federal-aid highway program is typically authorized on a multi-year basis. The current federal authorizing act is called the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

The federal-aid highway program is largely carried out by states in partnership with the federal government. From one perspective, federal-aid highway funds are made available to states to help achieve national transportation priorities. From another perspective, the federal-aid highway funds help support state highway programs and in a sense represent a return to states of transportation tax revenue.

The amount of federal aid each state receives can be more or less than the amount of highway tax revenue attributable to each state. It is widely recognized that there are legitimate reasons some states receive a higher share of attributed Highway Trust Fund contributions than others. For example, federal highway taxes attributable to western states with large land areas and relatively small populations would not be enough to support their share of national highway systems.

Federal transportation taxes are not collected by state governments or, for the most part, from end users. Federal fuel taxes are collected from a small number of fuel suppliers. As a result, each state's tax contribution to the Highway Account of the Highway Trust Fund can only be estimated.

The amount of federal taxes attributable to each state is estimated by the Federal Highway Administration (FHWA) using an analytical model. The FHWA publishes a report on the amount of revenue attributed to each state, as compared to the amount each state receives back through federal-aid highway programs. The FHWA analysis starts with July 1, 1956 when the Highway Trust Fund was established to fund construction of the Interstate Highway System. See <http://www.fhwa.dot.gov/policyinformation/statistics/2010/pdf/fe221.pdf>

The federal-aid highway program provides funds from the Highway Account of the Federal Highway Trust Fund to states within specific program categories. The major federal program categories are:

The FHWA's rate-of-return calculation represents how much each state has received in federal-aid highway program appropriations and allocations as compared to imputed contributions to the Highway Account of the Federal Highway Trust Fund. While historically, some states have been considered "donee" or "donor" of the Highway Account of the Federal Highway Trust Fund, they contributed more in federal-aid highway program funding than they received from the Highway Account of the Federal Highway Trust Fund. In effect, there were no "donor states" during this period.

Since 2005, all states have been receiving more than they contribute to the Highway Account of the Highway Trust Fund because expenditures from the fund have exceeded Highway Trust Fund revenues. Expenditures from the Highway Account of the Highway Trust Fund exceed dedicated Highway Account revenue in nine of ten years from 2001 through 2010. This has been possible because Congress used balances in the Highway Trust Fund in order to increase transportation spending beyond the level that can be supported by revenue. In addition, the Highway Trust Fund has been augmented with \$28.6 billion federal General Fund transfers — \$8.0 billion in 2009, \$7.0 billion in 2009, and \$13.6 billion (net) in 2010.

The use of federal General Fund revenue to support the Highway Trust Fund is problematic for at least two reasons. First of all, it breaks the connection between transportation funding and highway user fees. In addition, inclusion of federal General Fund revenue in the Highway Trust Fund distorts the application of the Equity Bonus. The Equity Bonus was intended to consider each state's imputed highway tax contribution to the Highway Trust Fund; it does not consider states' relative contribution to the general fund. Michigan's FY 2008 share of the Equity Bonus, 2.67%, is relatively close to its contribution to the fund. Michigan's FY 2008 bonuses distributed 8.45% of the General Fund to states funding in relation to contribution to the federal General Fund. For example, in FY 2008 New York received 2.41% of the Equity Bonus while it contributed 8.45% of the General Fund.

In addition to these six core apportioned programs, SAFETY-LU provides additional funds to some states based on equity considerations. This additional funding, intended in part to bring "donor states" up to an established minimum rate of return on attributed state contributions to the Highway Account of the Highway Trust Fund, is called the "Equity Bonus". Under SAFETY-LU the minimum rate of return on a state's imputed contribution to the Highway Trust Fund is as follows: 2005=90.5%; 2006=90.5%; 2007=91.5%; 2008=92.0%; 2009=92.0%.

The Equity Bonus minimum rate of return provisions do not apply to all federal-aid highway programs. A number of discretionary programs are excluded from the Equity Bonus calculation. As a result, the rate of return for some states may still be below the Equity Bonus minimums on a total highway

For 2010, the most recent fiscal year for which data is available, Highway Trust Fund highway taxes attributable to Michigan totaled \$897.3 million, while federal-aid highway funds apportioned to the state was \$1.164 billion – in other words, for highway taxes contributed to the Highway Trust Fund, Michigan received 130% back in federal highway program funds. This is due to the situation described above – Congress is distributing more for the program than is supported by highway tax revenue.

The alternative way to calculate Michigan's rate of return is to compute Michigan's apportionment divided by the apportionment to all states, then to divide that percentage by the Michigan's percentage contribution to the Highway Trust Fund, i.e. Michigan's contributions divided by the contribution of all States. Computed in this manner, Michigan's 2010 *relative* rate of return is only 90.0%.

Cumulatively, from 1957 through 2010, federal transportation taxes attributable to Michigan total \$25.285 billion, while the state has received \$24.561 billion in program funds – a rate of return of 97%.

Based on FHWA data sheets, Michigan's 2010 computed rate of return, 130%, is 41st out of 50 states, and its cumulative rate of return since 1957 is 97% – 46th out of the 50 states.

Additional information on this subject is available from a Government Accountability Office report dated September 2011, "*Highway Trust Fund – All State Received More Funding than They Contributed in Highway Taxes from 2005 to 2009.*" <http://www.gao.gov/new.items/d11918.pdf>

For a discussion of the use of federal General Fund revenue in the Highway Trust Fund, see "*The Other Highway Funding Crisis,*" July 17, 2009, Brookings Institution website.
http://www.brookings.edu/opinions/2009/0717_transportation_puentes.aspx

Federal Transit Programs

The Equity Bonus, and the discussion of each state's rate of return on contributions to the Highway Trust Fund, apply only to federal-aid highway programs. There is no minimum rate of return for federal transit programs and little discussion of each state's rate of return relative to Mass Transit Account of the Highway Trust Fund. Expenditures from the Mass Transit Account of the Highway Trust Fund averaged \$5.7 billion from 2003 to 2010; they were \$7.3 billion and \$7.4 billion in 2009 and 2010, respectively.

Although there is not a rate of return figure for transit programs, it is understood that historically, Michigan's share of federal transit program funding has been relatively low. This is due, in part, to the federal transit program's bias towards urban light rail systems. With regard to public transit, Michigan has been exclusively a bus state.



fiscal forum

February 2012 A Legislative Briefing



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Federal-Aid Highway Funds in the State Transportation Budget

William E. Hamilton, Senior Fiscal Analyst

Executive Summary

- Federal aid provides approximately \$1 billion each year for state highway programs. Federal funds support over one-half of the Michigan Department of Transportation's state trunkline road and bridge program.
- In recent years, the state's ability to access federal-aid highway funds has been at risk due to a shortfall in required state matching funds. The potential loss of federal funds, and the identification of state sources of matching funds, was the focus of both FY 2010-11 and FY 2011-12 budget deliberations. The Michigan Department of Transportation's *2012-2016 Five-Year Transportation Program* indicates that, beginning in FY 2012-13, the annual shortfall in matching funds will be between \$75 million and \$100 million, resulting in a potential annual loss of \$440 million to \$600 million in federal aid.
- Several options have been implemented, or proposed, for obtaining funds needed to match all available federal aid, including use of toll credits, use of Canadian funds related to the proposed NITC project, expanding local road agency access to federal-aid program funds, and use of state General Fund revenue for state transportation programs. While these four options may help to maintain baseline levels of transportation funding; they would not increase baseline transportation revenue or address structural problems in state transportation funding.
- A bill package intended to address larger structural transportation funding issues was introduced in both the Michigan House and Senate on January 26, 2012. House Bill 5289 would increase Motor Fuel Tax revenue; House Bill 5300 would increase Michigan Vehicle Code registration tax revenue. Together these two bills would increase dedicated transportation revenue by over \$1 billion annually. While not necessarily targeted at providing matching funds, passage of these bills would provide sufficient state funds to match all available federal-aid highway funds.

Fiscal Forum: Federal-Aid Highway Funds in the State Transportation Budget

- 1 There are public sources of transportation revenue that do not flow through the state transportation budget, primarily revenue generated from local transit or road millages, local general fund contributions for public transit or road programs, and federal aid to urban transit systems. Nonetheless, the largest share of public funding for state transportation programs is appropriated in the annual state transportation budget.
- 2 These baseline figures do not include over \$1.2 billion in temporary federal "Stimulus" funds made available for state transportation programs in FYs 2008-09 through 2010-11 under the American Recovery and Reinvestment Act of 2009 (ARRA).
- 3 The appropriaated amounts represent the best estimates of available federal funds at the time budgets were enacted. Actual federal-aid revenue earned and expended by the state is different than the appropriated amounts. See Graph 1 for appropriations history; see Graph 2 for actual federal-aid highway revenue.
- 4 Michigan's ability to match all available federal transit and aviation program funds is also in jeopardy. However, the focus of budget discussions and the focus of this memo is the state's ability to match federal general-aid highway funds.

The states' ability to match all available federal-aid highway funds remains a long-term problem. The department's 2012-2016 Five-Year Transportation Program indicates that, beginning in FY 2012-13, the annual shortfall in matching funds will be between \$75 million and \$100 million, resulting in a potential annual loss of \$440 million to \$600 million in federal aid.

The Governor's proposed FY 2012-13 transportation budget includes \$96.0 million in state General Fund revenue to address the match problem with regard to federal highway funds, and an additional \$23.0 million General Fund appropriation to match federal transit grants. The Governor's budget designates these proposed appropriations as "one-time".

The FY 2010-11 budget also assumed the sale of \$40 million short-term notes to match federal aid. The department was able to match federal funds in FY 2010-11 without selling notes. However, in December 2011, the department sold \$91.0 million in State Trunkline Fund bonds, of which \$40.0 million was designated for matching federal funds in the state trunkline construction program.

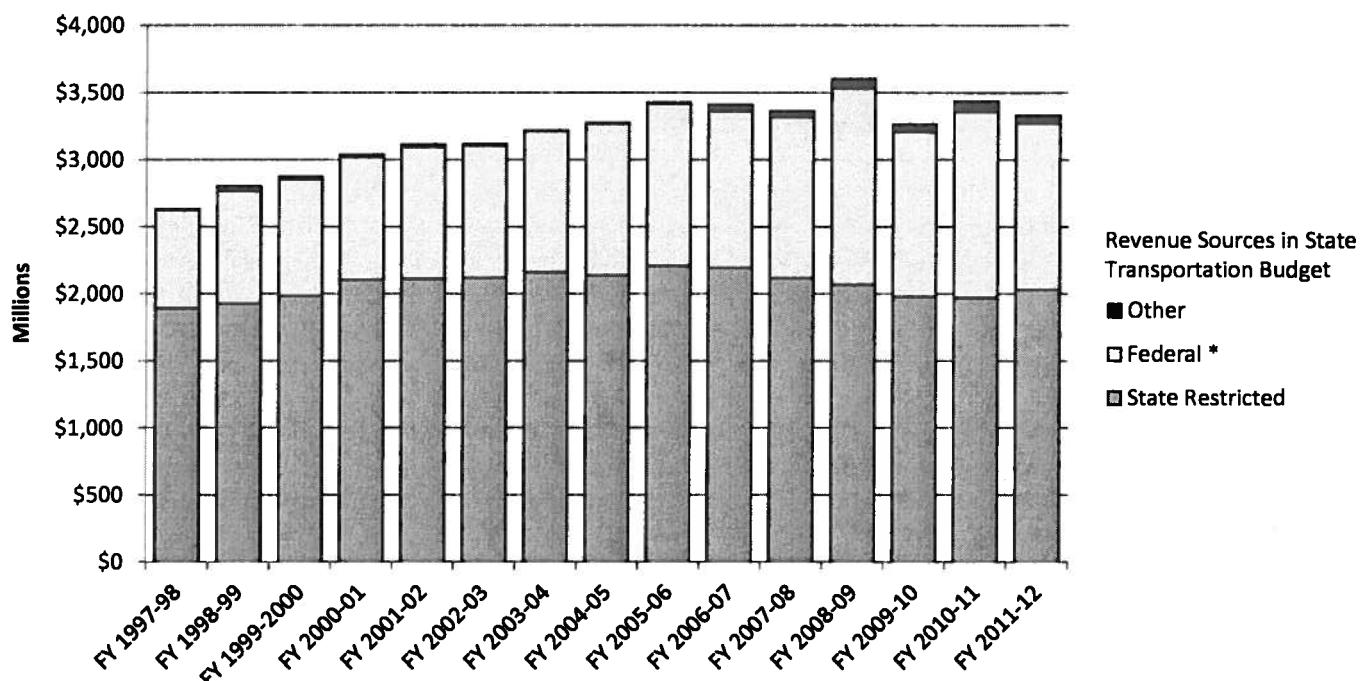
In recent years, the state's ability to access federal highway funds has been at risk due to a shortfall in required state matching funds.⁴ The potential loss of federal funds, and the identification of state sources of matching funds, were the focus of both FY 2010-11 and FY 2011-12 budget deliberations. In development of the FY 2010-11 budget, the department had indicated that it would be \$84.0 million short of state funds needed to match all available federal funds. The estimated shortfall for FY 2011-12 was \$147.0 million. In both fiscal years the shortfall, as represented in the budget, was resolved primarily through one-time savings or fund shifts, including reductions in state trunkline maintenance, deferral of capital outlay projects, and the use of toll credits.

While federal aid provides support for state transit, rail passenger, rail freight, and aviation programs, the largest share of federal aid in the state transportation budget is for state highway programs — \$1.08 billion in the current fiscal year budget. Highway programs in this context means federal aid for the construction and preservation of roads, streets, and bridges under both state and local jurisdiction.

Over the last 15 years, from FY 1997-98 through FY 2011-12, baseline federal aid appropriated in the state transportation budget ranged from \$732.5 million to \$1.43 billion, averaging \$1.094 billion.² Federal aid in the current fiscal year (FY 2011-12) state transportation budget is \$1.24 billion.³

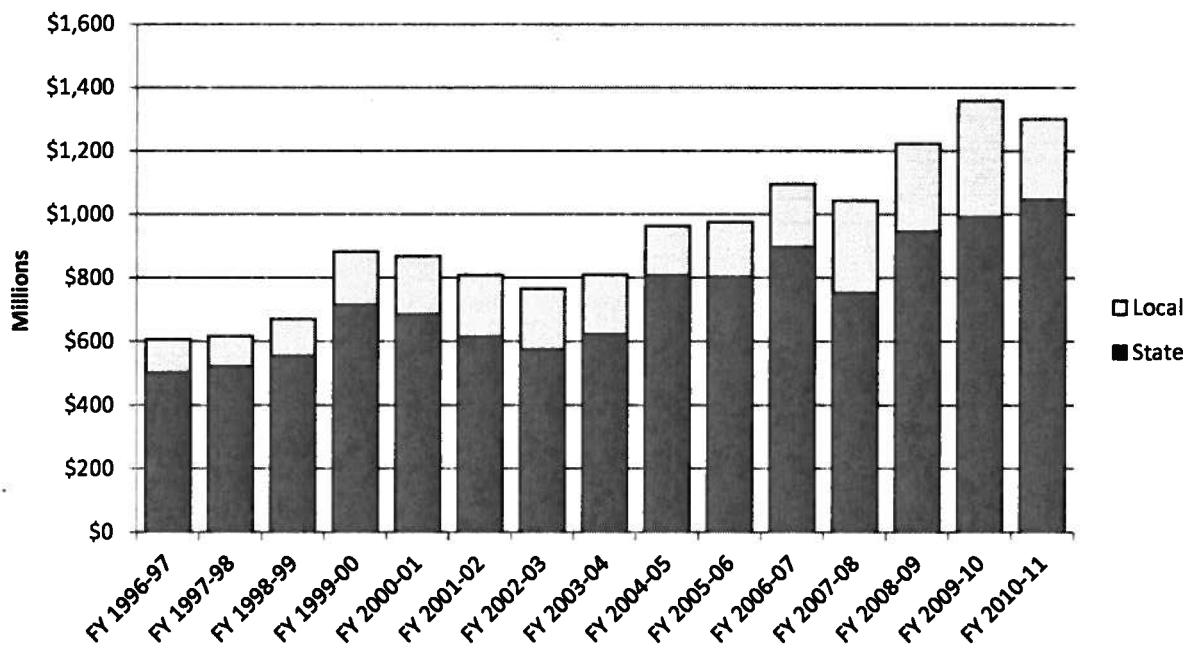
Most public funding for state transportation systems is provided through the state transportation budget.¹ While state restricted revenue (from state taxes on motor fuel and vehicle registrations) is the largest component of the annual state transportation budget, federal funds are the second largest. Federal funds typically represent one-third of the revenue appropriaated in Michigan transportation budgets. Federal funds support over one-half of the Michigan Department of Transportation's state trunkline road and bridge programs.

Graph 1
Michigan Federal-Aid Transportation Funds
As Appropriated
FY 1997-98 through FY 2011-12



* = Baseline federal-aid transportation funds, not included ARRA funding.

Graph 2
Michigan Federal-Aid Highway Funds
Actual Expenditures/Revenue Earned
FY 1996-97 through FY 2010-11



Most federal-aid highway funds are apportioned to states within specific program categories based on formulas in federal law, specifically 23 USC, as amended by SAFETY-11. The six core federal program categories are listed below:

The federal-aid highway program is primarily a shared federal-state program. Funding is provided by the federal government to states for certain eligible activities and programs. States administer the programs in accordance with federal requirements.

Highway Funds to States by Program Category

SAFETYA-LU authorized \$244.1 billion in guaranteed federal surface transportation program funding over \$193.2 billion authorized for federal-aid highway programs, for the five-year authorization period ending September 30, 2009. Since SAFETYA-LU expired in September 2009, Congress has been unable to enact a long-term reauthorization. On September 15, 2011, Congress passed an extension of the program through March 31, 2012, the seventh short-term extension since September 2009.

Federal support for highway programs increased significantly in 1956 with the passage of the Federal-Aid Highway Act of 1956, which authorized the construction of the Interstate highway system. In recent years, federal aid for surface transportation programs have been authorized by multi-year authorization acts including the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the Transportation Equity Act for the 21st Century (TEA-21) enacted in June of 1998, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), signed into law August 10, 2005.⁶

There is a long history of cooperation between the federal government and the states in the development of a national highway system. According to a Federal Highway Administration (FHWA) history of the federal highway construction program, the Federal-Aid Road Act of 1916 "established the basis for the Federal-aid highway program in cooperation with the States." The subsequent Federal-Aid Highway Act of 1921 "defined the Federal Aid Road Program" and helped create a national network of U.S. highways. Starting with these 1916 and 1921 acts, the federal government has provided funding for highway construction on a shared basis with the states.⁵

Background

The balance of this memo will describe federal-aid transportation programs, and more specifically, federal-aid highway programs, and the relationship of those federal programs to the state transportation budget. The memo will also discuss in more detail the potential loss of federal funds due to an anticipated shortfall in state matching funds, options for providing matching funds, and the larger issue of the state's structural transportation funding problem.

In addition to these six core apportioned programs, SAFETEA-LU provides additional funds to some states based on equity considerations. This additional funding, intended to bring "donor states" up to an established minimum rate of return on imputed contributions to the Federal Highway Trust Fund, is called the "Equity Bonus." The six core apportioned programs, plus the Equity Bonus, represent approximately 85% of total highway authorizations in SAFETEA-LU, \$164.5 billion over the original five-year SAFETEA-LU authorization period.

A number of smaller programs and subprograms are also authorized in SAFETEA-LU. Smaller apportioned programs include the *National Corridor Infrastructure Improvement Program*, and *Safe Routes to Schools*. Certain required state planning activities are funded through "takedowns" from the larger core programs: *Statewide Planning and Research* (SPR) is funded from a 2% takedown from funding apportioned to the six core programs; *Metropolitan Planning* is funded from a 1.25% takedown from core programs, as well as an authorization in the *Transit* title of SAFETEA-LU. The *Transportation Enhancements Program* is funded from a set-aside from the larger STP core program.

In addition to these *apportioned* programs, which are distributed by formulas established in SAFTEA-LU, some federal aid programs are *allocated* based on criteria established in the authorizing legislation or in appropriations acts. Many of these program funds are subject to Congressional earmarking. Under SAFETEA-LU, one of the largest of these allocated or discretionary programs, *High Priority Projects*, had been effectively a program of Congressional earmarks.

Federal law (23 USC) defines how categorical program funding can be used, i.e. the specific activities and projects that are eligible for program funding. Federal law also directs the sub-allocation of some program funds within the state based on population or other criteria. For example, 23 USC 133 directs that a portion of STP program funds be sub-allocated geographically within the state based on population – in part to urbanized areas over 200,000 population and in part to other areas. Other examples of these programmatic or distribution requirements include: the requirement that not less than 15% of federal bridge funds must be spent on "off-system" bridges; and the apportionment of CMAQ funds based on regional air quality measures, typically within urban areas of the state.

The requirements of federal law effectively create two "templates" which guide the distribution of federal-aid highway funds within the state: a programmatic template reflecting categorical program requirements, and a template reflecting geographic/population distribution requirements. In addition to these two federal "templates," state law also provides for a third guidance template – the distribution of federal funds by *jurisdiction*.

Allocation of Federal Highway Funds Between the State and Local Road Agencies

Generally speaking, the federal-aid highway program provides funding only for capital projects, and related planning activities. Federal funds cannot be used for routine or reactive maintenance, or for general administrative functions. In addition, federal funds are generally only available for roads and streets of a certain "functional classification." Broadly speaking, the program supports major roads and streets but not subdivision streets or local rural roads. Roads meeting these federal requirements are referred to as "federal-aid eligible" or "on the federal-aid system."

Federal-aid highway funds are made available to *states*, and state highway agencies are responsible for administering the programs in accordance with federal requirements. However, not all federal-aid eligible roads in Michigan are under state jurisdiction; a large number of federal-aid eligible roads are under the jurisdiction of local road agencies – county road commissions, cities, and villages.

Of 119,570 total road miles in Michigan, 33,504 are on the federal-aid system. Of these 33,504 federal-aid system miles, 9,681 are under state jurisdiction (state trunkline highways), and 23,823 are under the jurisdiction of local road agencies. The share of federal-aid eligible roads under state jurisdiction in Michigan, 29%, is quite low compared to other states.

- ⁷ Section 100 of Act 51 indicates that it is the intent of the Legislature that an average of 25% of applicable federal funds be allocated to programs for local jurisdictions.
- ⁸ All 83 county road commissions have roads on the federal-aid system and many cities have federal-aid eligible streets. However, a number of smaller cities and villages either do not have federal-aid eligible streets, or have very limited street mileage on the federal-aid system, and do not routinely develop federal-aid projects.
- ⁹ The geographic distribution is prescribed in part by the requirements of the STP program (23 USC 133), and in part by agreement between the department and local road agencies.

The federal highway program is a reimbursement program. The state and local road agencies are reimbursed with federal funds for qualified expenditures on authorized projects and programs as those expenditures are made.

As described above, federal funds are apportioned to the state and then allocated between the state trunkline system and local jurisdictions by program category. However, this allocation process is really simply an allocation of authority to spend federal funds. The allocation of spending authority does not of itself earn actual federal dollars. The state does not receive federal-aid highway revenue until money is expended on eligible projects or programs.

Federal Aid Planning Process/Project Development

In summary, the allocation of federal funds between the state and local agencies is based on a number of factors: the amount of federal aid available for obligation by program category, federal requirements regarding how those program categories can be spent, including geographic sub-allocation; and the state statutory requirement that 23% to 27% of major federal-aid highway funds be allocated to programs under local jurisdiction.

After agreeing on the overall state/local allocation of federal funds by program category, STP funds are further sub-allocated geographically across the state by population.⁹ See flowchart on page 7 showing the distribution of federal aid by program category and geographic sub-allocation.

After the Michigan Department of Transportation is notified by the FHWA of actual obligation authority by program category, the department develops, in cooperation with representatives of local road agencies, an allocation of that authority, by program category, between the state and local agencies. It should be noted that some programs, such as Interstate Maintenance, are only available for use by the state, i.e. the Michigan Department of Transportation. All the Interstate highways in the state are state trunkline highways, under department jurisdiction. For the Michigan Department of Transportation report showing the allocation of federal funds between state and local programs see http://www.michigan.gov/documents/mdot/MOTSeC401_365841_7.pdf.

As described above, the federal authorizing acts, like SAFETEA-LU, establish authorization limits, by program category, over the life of the act. Each year, the federal government announces to the states how much of that authority is called obligation authority or obligation limit. This obligation limit is established in annual spending authority can actually be programmed for expenditure in the upcoming fiscal year. The amount of actual spending authority is called obligation authority or obligation limit. This obligation limit is established in annual appropriations bills.

Because a large share of federal-aid eligible roads in Michigan are under the jurisdiction of local road agencies, Section 100 of 1951 PA 51, the statute governing state transportation funding, requires that 23% to 27% of federal-aid highway funds, with certain exceptions, be allocated to programs administered by local jurisdictions.⁷ Act 51 does not establish a specific amount or percentage for any particular local road agency – not all local road agencies have roads on the federal-aid system.⁸

Although most federal-aid eligible road mileage in Michigan is under local jurisdiction, the state trunkline highway system, almost all of which is on the federal-aid system, has the highest commercial truck traffic. The state trunkline system includes all the traffic, and carries the largest share of commercial truck traffic. The state trunkline system includes all the Interstate, "US", and "MI" numbered highways.

In effect, the state and local agencies earn federal aid over the course of each year as eligible costs, such as contractor payments, or related engineering labor, benefits, and equipment, are incurred and billed to federal participating project accounts through the department's federal-aid billing system.

In order to be eligible for federal aid, projects must be developed through a federally-mandated planning process. The broad statewide planning requirements are defined in 23 CFR Subchapter E, "Planning and Research." Project-specific planning requirements are contained in 23 CFR Subchapter H "Right of Way and Environment."

In order for specific projects to be eligible for federal funding, they must first be included in the Statewide Transportation Improvement Program (STIP) or the Transportation Improvement Programs (TIPs).

In urbanized areas, the TIPs, which include both state trunkline and local federal aid projects, are prepared under the guidance of the applicable Metropolitan Planning Organization (MPO). In non-urban areas, the Michigan Department of Transportation develops state trunkline projects for inclusion in the STIP. *Rural task forces* select local federal-aid projects outside of MPO boundaries. Rural task forces are ad-hoc committees comprised of local road and transit agencies within certain designated regions. There are 22 rural task force regions in Michigan.

The STIP/TIP development process *requires* the participation of local public officials.

The STIPs and TIPs are *fiscally constrained*; they are not a wish list of projects. The TIPs and STPs are developed from *estimated* available federal program revenue (based on SAFETEA-LU authorization limits), and *estimated* non-federal matching revenue, available for the four-year planning horizon. The amount of actual federal revenue available for the state and local agencies for an upcoming fiscal year is based on the amount of federal aid *obligation authority* made available to states. Once a project is on the TIP or STIP, it can proceed to design and construction, subject to *actual* available federal revenue, *actual* available state or local matching revenue, and project-specific planning considerations.

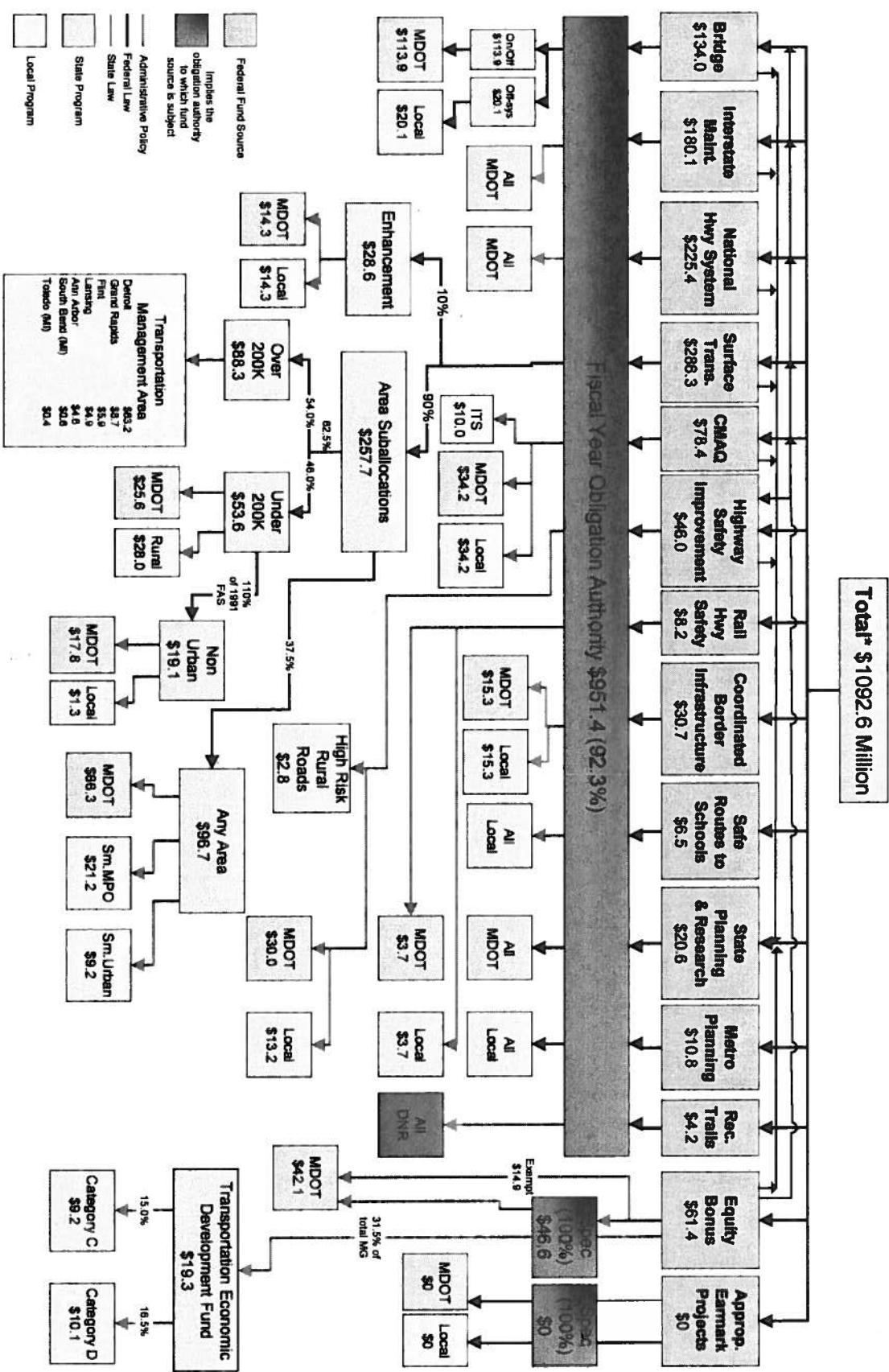
The Michigan Department of Transportation provides administrative support and guidance to local agencies to ensure that the development of local federal-aid projects follows federal requirements. In addition, the department advertises and awards local federal-aid project construction contracts on behalf of local road agencies; local federal-aid projects follow the same competitive bidding process as state trunkline projects. Contractor payments and other local project costs are processed through the department's contractor payment and federal-aid billing systems.

Federal Aid Highway Funds Relation to the State Budget

The activities related to the allocation of federal aid and the planning of federal-aid projects are generally independent of the state appropriations process. Federal-aid highway funds shown in the annual state transportation budget are based on Michigan Department of Transportation estimates of available federal obligation authority; the actual amount is often not known during budget development – it may not be known until well into the state fiscal year.

Article IX, Section 17 of the Michigan Constitution indicates that no funds may be spent from the state treasury except by appropriation. The annual state budget simply provides to the Michigan Department of Transportation the authority to spend federal funds. The budget does not determine the amount of federal funds available to spend or the allocation by program category. Similarly, the state budget recognizes the federal funds available to local road agencies through an appropriations placeholder, *Local federal aid construction*. This appropriation does not determine the actual amount available to local agencies or direct the suballocation to particular local agencies.

FEDERAL AID TO HIGHWAYS PROGRAM - MICHIGAN, FY 2011



State Matching Funds and the Potential Loss of Federal Aid

Most federal-aid transportation programs require a non-federal match. The amount of required matching funds varies by program. The Interstate Maintenance program requires only a 10% non-federal match; federal funds support 90% of eligible Interstate Maintenance costs. Most federal-aid highway programs, including the largest programs (STP, NHS, HBRRP) require a 20% non-federal match. For projects under the jurisdiction of the Michigan Department of Transportation, the non-federal matching funds are typically provided from the state-restricted State Trunkline Fund (STF). For projects on roads under local jurisdiction, the non-federal match is typically provided from the local agency's distribution of Michigan Transportation Fund (MTF) revenue.

In its *2008-2012 Five-Year Transportation Program*, the department first publically identified a shortfall in state funds needed match all available estimated federal aid. The department indicated that starting in FY 2009-10 it would not be able to match all available federal aid.

The potential loss of federal funds, and the identification of state sources of matching funds, were the focus of both FY 2010-11 and FY 2011-12 state transportation budget deliberations. In development of the FY 2010-11 budget, the department had indicated that it would be \$84.0 million short of state funds needed to match all available federal funds. The identified shortfall in FY 2011-12 was \$147.0 million. In both fiscal years the shortfall, *as a budgetary issue*, was resolved – primarily through short-term or one-time savings or fund shifts, including reductions in state trunkline maintenance, deferral of capital outlay projects, and use of toll credits.

The FY 2010-11 budget also assumed the sale of \$40 million short-term notes to match federal aid. The department was able to match federal funds in FY 2010-11 without selling notes. However, in December 2011, the department sold \$91.0 million in State Trunkline Fund bonds, of which \$40.0 million was designated for matching federal funds in the state trunkline construction program.

The department's *2012-2016 Five-Year Transportation Program* indicates that beginning in FY 2012-13, the annual shortfall in STF matching funds needed for the state trunkline highway program will be between \$75 million and \$100 million, resulting in a potential annual loss of \$440 million to \$600 million in federal aid.

The reduction in state funds available to match federal funds is primarily the result of two factors: the reduction in STF revenue, and the increase in STF-related debt service. Both these factors date from 2004.

The STF receives most of its revenue from a distribution from the Michigan Transportation Fund (MTF) – the state's primary collection and distribution fund for state restricted motor fuel tax and vehicle registration tax revenue. MTF revenue peaked in 2004 at \$2.065 billion and declined each year through FY 2009-10. FY 2009-10 MTF revenue of \$1.840 billion was \$225 million less than the FY 2003-04 peak. The STF share of MTF revenue correspondingly declined, from \$747.8 million in FY 2003-04 to \$630.4 million in FY 2009-10, a decline of \$117.4 million.¹⁰

The second factor affecting STF revenue available for matching federal aid-highway funds was the increase in STF-related debt service. In FY 2003-04 STF supported debt service was \$43.8 million. By FY 2010-11 STF supported debt service had increased to \$145.5 million. The increase in debt service reduces the amount available for current year programs.¹¹

The shortfall figures used in the department's *Five Year Transportation Program* documents represent the department's best estimates of both federal program funding and available state matching funds at a point in time.

¹⁰ See House Fiscal Agency website for a rolling analysis of MTF revenue and distribution.

¹¹ See HFA memo State Transportation Borrowing and Debt Service [54K], April 22, 2010.

The discussion of matching funds and the potential loss of federal aid highway funds, in budget development and in the department's Five-Year Transportation Program, relate only to the state trunkline road and bridge program. Representatives of local road agencies and regional planning organizations have indicated that many local road agencies are also having trouble providing matching funds for local federal-aid projects. The MTF is the primary source of funds for local road agencies and the decline in MTF revenue has limited the ability of those agencies to provide federal matching funds for local federal-aid projects. Because there are a large number of local road agencies with potential federal-aid projects, it is hard to quantify the total amount of the shortfall related to local agency federal-aid highway programs.

Several options have been used, or proposed, for obtaining funds needed to match all available federal aid highway funds. Those options are discussed in detail below.

To be eligible to use toll credits, a state must also meet federal maintenance of effort (MOE) requirements. The MOE requirements help ensure that states do not simply use federal funds to replace state or local transportation funds. According to the American Association of State Highway and Transportation Officials, "Innovative Finance," website, "Toll credits are earned when the state, a toll authority, or a private entity funds a capital transportation investment with toll revenues earned on existing toll facilities (excluding revenues needed for debt service, returns to investors, or revenues spent on non-federal highway capital improvement projects)." To be eligible to use toll credits, a toll facility credit program in 1994 in accordance with Section 1044 of ISTEA, and the department established a toll facility credit program in 1992 under provisions of Section 1044 of ISTEA. The toll credits based on toll facilities has requested, and the FHWA approved, \$99.4 million in toll credits related to the Mackinac Bridge, the Blue Water Bridge, and the International Bridge. However, because the department had begun computing toll credits based on toll-financed capital expenditures at three publicly-owned toll facilities, the department received three toll credits to toll facilities to toll facilities to toll facilities. Those toll credits recognize toll facilities to provide the non-federal share of federal transit grants for local transit agencies.

According to a FHWA guidance document dated February 8, 2007, "To be able to earn a toll credit, a state must satisfy the MOE determination of 23 U.S.C. 120(j)(2). The MOE determination is an assessment of a state's non-federal transportation capital expenditures over a four year period." To be eligible to use toll credits, a state must also meet federal maintenance of effort (MOE) requirements. The MOE requirements help ensure that states do not simply use federal funds to replace state or local transportation funds. According to a FHWA guidance document dated February 8, 2007, "To be able to earn a toll credit, a state must satisfy the MOE determination of 23 U.S.C. 120(j)(2). The MOE determination is an assessment of a state's non-federal transportation capital expenditures over a four year period."

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Toll credits can be used for both highway programs established under 23 USC and transit programs established under 49 USC. When toll credits are used as the "soft match" for a project, the project is effectively a 100% federally funded.

As noted above, most federal aid highway programs require a non-federal match – most commonly 20% of project cost. To recognize states with a high reliance on toll facilities, federal law allows use of capital expenditures made by toll facilities, such as toll bridges and toll roads, to count as a "soft match" for federal funds.²² Toll credits allow states to access federal funds in situations when they do not have sufficient non-federal matching funds.

Funds – Toll Credits

Options for Matching Federal-Aid Highway

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1995 through 2003, and 2008. However, because the state did not meet MOE requirements, toll-financed expenditures made in FY 2003-04 through FY 2006-07, and FY 2008-09, could not be recognized for use as toll credits.

The department initially used toll credits primarily to match federal transit grants for local transit agencies. However, as part of the FY 2010-11 budget agreement, \$11 million in toll credits were designated for matching federal-aid highway funds in state trunkline construction program.

Federal law allows the recognition of capital investments made at private toll facilities in calculating a state's toll credits. However, the state, (not the toll facility) still has to meet the federal MOE requirements. In addition, the private toll facility has to identify toll-financed capital expenditures. Prior to 2011, neither the Ambassador Bridge, a private toll facility owned by the Detroit International Bridge Company (DIBC), nor the Detroit-Windsor Tunnel, were included in the state's toll credit calculation.¹⁵

In 2011, the department and DIBC came to an agreement which allowed the third party review of DIBC records in order to include DIBC capital expenditures in the department's toll credit calculation. The review identified \$50.6 million in toll credits related to DIBC 1998, 2001, 2002, 2003, and 2008 toll-financed capital expenditures. On May 18, 2011 the FHWA approved the department's request to use these private facility toll credits for non-federal match for either federal-aid highway programs or federal transit programs. These toll credits were recognized in the FY 2011-12 budget agreement as a source of matching funds for federal-aid highway funds appropriated in the FY 2011-12 state transportation budget.

Also in 2011, the department and the Detroit-Windsor Tunnel Company came to an agreement which allowed the recognition of that company's toll-financed capital expenditures for years 1994, 1996, 1997, 1999, and 2008 in the department's toll credit calculation. In December 2011, the FHWA approved \$5.8 million in toll credits related to the Detroit-Windsor Tunnel.

Toll credits are a soft match and not real money. Construction contractors on projects cannot be paid in toll credits. In addition, toll credits do not increase total federal funds available to a state. The amounts apportioned to the state according to federal program requirements remain the same. To illustrate: If total federal aid apportioned to the state was \$800 million, the state could fund ten \$100 million projects using 80% federal aid and 20% non-federal matching funds. If non-federal matching funds were not available, and the state generated enough in toll credits, the state could fund eight \$100 million projects with federal funds providing 100% of project cost. In both cases, the total federal aid to the state is \$800 million. However, in the first instance, the state would have a \$1.0 billion construction program; in the second, only an \$800 million program.

Toll credits should be considered a short-term or one-time financing mechanism, and not a solution to the state's structural transportation funding problems. Because there is no assurance that the state will continue to meet MOE requirements, there is no assurance that the state will continue to earn toll credits for matching future federal aid.

In addition, the amount of toll credits earned over the last ten years have been substantially less than the \$75 million to \$100 million annual shortfall in matching funds identified in the *2012-2016 Five Year Transportation Program*.

Options for Matching Federal-Aid Highway Funds – Canadian Contribution to NITC Project

In his 2011 State of the State message, Governor Rick Snyder announced that the Canadian government had agreed to provide up to \$550 million (U.S.) to cover costs that would otherwise be borne by the state of Michigan in relation

¹⁵ In a January 27, 1994 letter, the Michigan Department of Transportation requested information from the DIBC on toll-financed capital expenditures in order to include that information in its toll credit calculation. The department and the DIBC did not come to an agreement on sharing this information until 2011.

¹⁶ The department has indicated that the proposed Canadian contribution would cover certain state costs associated with the NTC project. Such work could include utility relocation, right of way acquisition, realignment of surface streets, and connections to interstate freeways. As described in an administration briefning paper (September 2011) the Canadian contribution would not be a loan to the state of Michigan. There would be no liability created or reported on the state's financial statements. The Canadian government would be repaid from tolls under the public private partnership agreement to the extent that tolls supported repayment.

The proposed Canadian contribution differs from toll credits in that the Canadian funds represent real money, money that could be expended for engineering, construction contractor payments, and other NTC project-related work in Michigan. Toll credits are a soft match and not real money. In addition, the amount of funds identified in the Canadian proposal, up to \$550 million, is substantially more than any anticipated toll credits over the next five years.

The proposed Canadian contribution differs in that the Canadian funds represent real money, money that could be expended for engineering, construction contractor payments, and other NTC project-related work in Michigan. Toll credits are a soft match and not real money. In addition, the amount of funds identified in the Canadian proposal, up to \$550 million, is substantially more than any anticipated toll credits over the next five years.

The proposed Canadian contribution to the state's structural transportation funding problems, and not a solution to the state's financing mechanisms, and not federal funds available to a state. The amounts apportioned to the Canadian contribution would increase total federal funds available to a state. The amounts apportioned to the Canadian projects to be programmed with 100% federal funding. However, neither toll credits nor recognition of the Canadian proposes on the state's total trunkline federal-aid construction program. Both financing methods would allow some regards. Both financing methods allow capital expenditures on certain facilities to be recognized for matching funds and instead assumed \$50 million in toll credits as the means of matching federal funds.

The administration's FY 2011-12 budget proposal had recognized \$50 million from the Canadian NTC contribution as one of the elements in matching all federal aid shown in the budget. The legislature rejected the recognition of the Canadian funds and instead assumed \$50 million in toll credits as the means of matching federal funds.

The department's 2012-2016 Five Year Transportation Program indicated that in FY 2012-13, the annual shortfall in matching funds will be between \$75 million and \$100 million, resulting in a potential annual loss of \$440 million to \$600 million in federal aid. The \$550 million Canadian contribution to the NTC project could provide most of the shortfall amount identified in the Five Year Transportation Program for the four fiscal years FY 2012-13 through 2015-16, depending on the approval of the NTC project and the timing of expenditures. The Canadian contribution could not provide the entire match shortfall because the contribution is only recognized as a match for STP program funds.

The ability to provide matching funds on a program basis, rather than project-by-project basis, has always been authorized in 23 USC 133 for the STP program. It has never been used in Michigan and it is not clear if this method of matching federal aid has been used in other states.

The agreement with the FHWA announced by the Governor would allow the state to demonstrate that it met federal matching requirements for the STP program, the largest of the federal-aid highway categorical programs, on a total program basis, and not necessarily on a project-by-project basis. This would allow the funding of some projects in outstate Michigan with 100% federal funds with no non-federal match required.

Historically, the state has provided non-federal matching funds on a project-by-project basis. For example, the department develops and awards approximately 400 federal-aid participating state trunkline construction projects each year. Each project is typically developed using a combination of federal aid and non-federal STP matching funds. The total federal aid earned by the state would be the sum of all the non-federal matching funds applied to all 400 projects, and the related matching funds needed would be the sum of all the non-federal matching funds applied to all 400 projects.

That the FHWA had agreed to allow the state to use this Canadian contribution to the NTC as a match for federal-aid program funds.

To the proposed North American International Trade Crossing (NTC) project,¹⁶ in addition, the Governor indicated

***Options for Matching Federal-Aid Highway
Funds – Increased Local Federal Aid Program***

The discussion of the shortfall in matching funds and the potential loss of federal-aid highway funds has been focused on the state trunkline road and bridge construction program. Some have suggested that if the state is unable to identify matching funds for its program, rather than lose federal aid, local agencies should be given access to additional federal-aid highway funds. This appears to be the intent of House Bill 4739 (Rep. Knollenberg) which would allow local jurisdictions an increased share of federal-aid highway funds beyond the 23% to 27% currently mandated by 1951 PA 51.

Increasing local road agency access to the state's federal aid program would shift limited transportation funds from the state trunkline system to the local road system. However, it is not clear that local agencies could access additional federal aid. Many local road agencies have indicated that they are having trouble providing the non-federal match for the current local federal aid program, and it appears unlikely that local road agencies could provide the additional \$75 million to \$100 million shortfall identified in the department's *Five Year Transportation Program*. In addition, some federal-aid funds are available only to the Michigan Department of Transportation; local road agencies do not have the ability to access Interstate Maintenance program funds.

***Options for Matching Federal-Aid Highway
Funds – Use of General Fund Revenue***

Some have suggested the use of state General Fund revenue to provide the matching funds needed to access all available federal-aid highway funds. Two bills introduced in the 2011-2012 Legislative Session, House Bill 4521 (Rep. Agema), and Senate Bill 351 (Sen. Proos) would redirect the General Fund portion of the sales tax applicable to motor fuel sales to transportation funds. House Bill 4521 would redirect an estimated \$83.1 million to \$112.7 million from the state General Fund to transportation funds.

If the General Fund portion of the sales tax applicable to motor fuel sales were targeted for the state trunkline road and bridge program, it could provide roughly the amount of the shortfall identified in the department's *Five Year Transportation Program* – \$75 million to \$100 million. However, if the funds were allocated between the state trunkline system and local road agencies in accordance with the current distribution formulas of 1951 PA 51, the amount credited to the STF would range from \$29 million to \$39 million – well short of the needed matching funds identified by the department.

The Governor's proposed FY 2012-13 transportation budget includes \$96.0 million in state General Fund revenue to address the match problem with regard to federal-aid highway funds, and an additional \$23.0 million General Fund appropriation to match federal transit grants. The Governor's budget designates these proposed appropriations as "one-time."

Historically, state General Fund revenue has not been routinely appropriated for state transportation programs. To the extent that revenue from fuel taxes and vehicle registration taxes is constitutionally restricted for transportation, there has been a "firewall" between transportation funds and the state General Fund – a firewall recognized in Section 10 of 1951 PA 51 which prohibits the credit of state General Fund revenue to the MTF. In addition, use of General Fund revenue would have to be offset with reductions in baseline General Fund programs.

on administration estimates.

¹⁷ The revenue impact of House Bill 5889 is based on a House Fiscal Agency bill analysis. The impact of House Bill 5300 is based

NOTE: This report was written by William E. Hamilton, Senior Fiscal Analyst. Kathryn Bateson, Administrative Assistant, prepared the report for publication.

* * *

The bill package was not necessarily targeting matching funds for the federal-aid highway program. The bills were intended to address larger structural transportation funding issues. Nonetheless, if passed, the bills to increase transportation revenue would provide more than enough state funds to match all available federal-aid highway funds.

On January 26, 2012, bills reflecting the Governor's proposals for transportation funding were introduced in both the Michigan House and Senate. One of the House Bills in the package, House Bill 5289, would increase motor fuel taxes, increasing transportation revenue by over \$525 million in the first year of the bills' effect. House Bill 5300 would increase vehicle registrations by an estimated \$500 million.¹⁷

In September 2011, a bi-partisan workgroup of the House Transportation Committee issued a report that concluded that the state needed \$1.4 billion in additional annual infrastructure investment to preserve the current road system. In October 2011 Special Message on Michigan's infrastructure, Governor Rick Snyder indicated support for increasing investment in the state's transportation infrastructure. The Governor cited a 2008 Transportation Funding Task Force (TF2) report which advocated increasing annual state transportation funding.

The four options discussed may help the state to match all available federal-aid highway funds, and in doing so, to maintain baseline levels of transportation funding. None of the four proposals would increase baseline transportation revenue or address structural problems in state transportation funding.

Other Transportation Funding Options –
Transportation Fuel and Registration Taxes

MEMORANDUM

DATE: February 6, 2012
TO: Interested Parties
FROM: William E. Hamilton
RE: Motor Fuel Taxes, Sales Tax on Motor Fuels, and Tax Collection (*Updated*)

There are several separate taxes on gasoline and diesel motor fuels purchased or consumed in Michigan. These taxes are included in the price of fuel purchased "at the pump." This memo provides background information on taxes imposed on motor fuels in Michigan.

Motor Fuel Tax – The state of Michigan imposes a 19-cent per gallon excise tax on gasoline used in motor vehicles. This tax is established in the Motor Fuel Tax Act (2000 PA 403). The tax rate was last changed in 1997 when the rate was increased from 15 cents per gallon to the current 19-cent per gallon rate. The motor fuel tax on gasoline is expected to generate over \$839 million for transportation in FY 2010-11 and represents approximately 45% of the state funds in the state transportation budget.

The state also levies a 15-cent per gallon tax on diesel motor fuel. The tax on diesel motor fuel is established in two different acts: the Motor Fuel Tax Act, and the Motor Carrier Fuel Tax Act (1980 PA 119). The tax under the Motor Fuel Tax Act is effectively a tax on diesel fuel consumed in Michigan and purchased in Michigan; it is included in the pump price paid by diesel-powered passenger cars, and commercial diesel-powered trucks that never leave the state of Michigan. Interstate motor carriers are taxed for fuel consumed in Michigan under the Motor Carrier Fuel Tax Act, whether they purchase fuel in Michigan or not. Together the two diesel fuel taxes generated \$125.3 million in fuel tax revenue in FY 2010-11.

Revenue from the motor fuel taxes is dedicated by the 1963 Michigan Constitution for transportation purposes. Revenue from these taxes is first credited to the Michigan Transportation Fund (MTF) and is then distributed to other funds and programs according to a formula established in Public Act 51 of 1951.

Federal Excise Tax – In addition to Michigan's 19-cent per gallon gasoline excise tax, the federal government levies an 18.4 cent per gallon gasoline excise tax, and a 24.4 cent per gallon diesel fuel excise tax. These taxes are earmarked for the Federal Highway Trust Fund which is distributed to the states for highway and public transportation programs.

Michigan Sales Tax – Michigan is one of several states to impose a sales tax on motor fuel sales, in addition to motor fuel excise taxes.¹ Sales of motor fuels are subject to the state's 6% sales tax on retail sales, established in the General Sales Tax Act (1933 PA 167). The tax base for the sales tax on gasoline sales is the motor fuel retail price, including the federal excise tax, but not including the state motor fuel excise tax. A table showing the calculation of the taxable base for sales tax on gasoline at selected price points is included at the end of this memo.

¹ Several states also allow for local motor fuel taxes; Michigan does not.

⁴ Some fuel delivered by pipeline or vessel to Michigan terminals is refined in other states; some fuel is refined at the single operating oil refinery in Michigan, located in Southwest Detroit.

³ This applies to both sales from in-state terminals and sales from out-of-state terminals where Michigan is the destination state. There are 37 Internal Revenue Service registered refined petroleum product terminals in Michigan.

² The U.S. Department of Treasury also collects federal motor fuel excise taxes from fuel suppliers, not from retailers.

The change in the tax collection point from the retailer to the supplier was effected for the gasoline tax Public Act 668 of 2002. The change for diesel taxes was made in part by PA 225 of 1992, and completed through by Public Act 225 of 1992 – this was considered to be one of the reforms of the first Build Michigan program. The change for diesel taxes was made in part by PA 225 of 1992, and completed through by Public Act 668 of 2002.

In most instances, the point of taxation for the Motor Fuel Tax is the point at which fuel is transferred across a terminal loading rack to a fuel wholesaler.³ The taxpayer, the supplier, is the last owner of motor fuel before it is transferred across the loading rack. Fuel terminals are places where refined fuel is delivered by pipeline or vessel from refiners.⁴

Although the retail price of fuel purchased "at the pump" includes federal and state excise taxes, those taxes are not actually collected from the retailer, (i.e. service station). The state motor fuel excise taxes are actually collected by the Michigan Department of Treasury from fuel suppliers as defined in the Motor Fuel Tax Act.²

How Taxes are Collected – Motor Fuel Taxes

Refined Petroleum Regulatory Fee – Most states impose an environmental protection fee on the sale of petroleum products. As provided in Part 215 of the Natural Resources and Environmental Protection Act (1994 PA 451), Michigan imposes a 7/8 cent per gallon regulatory fee on all petroleum products (not just motor fuels). Revenue from this fee is dedicated to the Refined Petroleum Fund for use in state environmental cleanup programs. Refined Petroleum Fund revenue also supports the motor fuel quantity inspection program of the Michigan Department of Agriculture.

The Michigan sales tax is subject to earmarking: One hundred percent (100%) of the tax at 2%, and fifteen percent (15%) of the tax at 4% is dedicated by the state Constitution to the School Aid Fund. Sixty percent (60%) of the tax at 4% is dedicated by the state Constitution to the School Aid Fund. A portion of the sales tax on motor fuel and other automotive products is statutorily earmarked, in the General Sales Tax Act, to the Comprehensive Transportation Fund for public transportation programs. This earmark is sometimes described as the "auto-related sales tax." There is also an earmark, effectively \$9.0 million, to the Michigan Health Initiative Fund. The balance of sales tax revenue, i.e. the amount not otherwise constitutionally or statutorily earmarked, is credited to the state General Fund.

An increase in gasoline-related sales tax does not generate a sales tax "windfall." Because households have budget constraints, increases in consumer gasoline purchases are largely offset by reductions in other taxable purchases.

Approximately 4.4 billion taxable gallons of gasoline were consumed in Michigan in 2011. At this level of consumption, and an average pump price of \$3.50 per gallon, the sales tax would have generated approximately \$18.3 million in sales tax revenue. Assuming the same level of consumption and an average pump price of \$4.00 per gallon, the sales tax would have generated approximately \$941.7 million.

Moving the collection point to the fuel supplier was intended to make the collection of these taxes much more efficient. It is much easier for the Michigan Department of Treasury to collect from and audit a relatively small number of large fuel suppliers than several thousand retail service stations.

Section 14 of the Motor Fuel Tax Act allows suppliers to deduct 1.5% of the gasoline quantity from taxation to allow for "the cost of remitting the tax." This tax expenditure equates to approximately \$12.4 million per year. The deduction had been 2% of the gasoline quantity prior to the enactment of Public Act 83 of 1997 (the amending act that increased the tax from 15 cents per gallon to 19 cents). Prior to 1997 amendment, this deduction had been described in the Motor Fuel Tax Act as an "evaporation and loss allowance."

Section 14 also requires a wholesaler or supplier to pay or credit to the retailer one-third of the deduction on quantities of gasoline sold to the retailer.

How Taxes are Collected – Sales Taxes on Gasoline

With regard to the sales tax, the Michigan Department of Treasury sets a prepaid gasoline sales tax rate. This tax is collected from the gasoline supplier or importer at the time fuel is sold to a wholesaler. As a result, *estimated* sales tax is included in the price paid by the wholesaler and, in turn, the retail service station. The retailer is credited for the amount of prepaid sales tax at the time he or she prepares a monthly sales tax report. If the retailer had effectively prepaid \$10,000 in sales tax, as included in the price charged by the wholesaler, and the retailer's actual total tax liability for the month was \$11,000, the retailer would remit only the \$1,000 balance to the Department of Treasury. Conversely, if the retailer's actual tax liability were less than the amount of pre-payment, the retailer would be entitled to a credit.

The pre-payment provisions of the General Sales Tax Act with regard to the sales tax levied on gasoline sales were first established under 1983 PA 244, which amended the act by adding a new section, Section 6a. The legislative analysis at that time indicated that the amending legislation was intended to make it harder for unscrupulous gasoline retailers to undercut tax-compliant retailers by not charging sales tax.

In 2008, Section 6a of the General Sales Tax Act was amended by 2008 PA 556 (Senate Bill 881). Prior to enactment of Senate Bill 881, the law had required the Department to determine the prepayment rate at least annually, or every six months if the statewide retail price of a gallon of self-serve unleaded regular gasoline had changed by 10.0% or more during the six-month period. Senate Bill 881 required the Department to determine the prepayment rate every *three months* unless it determined that the statewide average retail price for self-serve unleaded regular gasoline had changed less than 10.0% since the establishment of the rate. It is our understanding that the change effected by Senate Bill 881, to increase the frequency of adjustments to the gasoline pre-payment sales tax rate, was intended to help reduce tax overpayments and underpayments.

		Gas at \$4.00 per gallon
\$3.410	Base retail price	
0.184	Federal excise tax	
\$3.594	Base for sales tax	
0.216	Sales tax @ 6%	
\$3.810	Subtotal	
0.190	State excise tax	
\$4.000	Pump price	

Components of Gasoline Price at Selected Price Points

		Gas at \$3.50 per gallon
\$2.939	Base retail price	
0.184	Federal excise tax	
\$3.123	Base for sales tax	
0.187	Sales tax @ 6%	
\$3.310	Subtotal	
0.190	State excise tax	
\$3.500	Pump price	



William Hamilton, Senior Fiscal Analyst

February 21, 2013

Financing Michigan's Transportation Network *The State Transportation Budget and Beyond*

Introduction

Michigan residents rely on a safe and efficient transportation network for many reasons – to commute to work and school, for entertainment and social connections, to access medical services. Transportation is also a critical part of the state economy. *Transportation and warehousing*, as a stand-alone segment of the economy, represents \$9.5 billion of Michigan's \$385.2 billion Gross Domestic Product, and accounts for 105,400 direct jobs out of total non-farm employment of 4.0 million.¹ An effective transportation network is also necessary for the success of other parts of the state economy – for, among other things, the delivery of raw materials to manufacturers and processed goods to end users.

The state of Michigan supports key elements of this transportation network through appropriations made in the state transportation budget. The state transportation budget provides funding for the construction and preservation of the state trunkline highway system; preservation and improvement of local road and street systems; capital and operating assistance to local public transit agencies; support for rail freight, rail passenger, and intercity bus programs; and capital grants for airport improvements.

This publication, *Financing Michigan's Transportation Network*, will describe the major programs funded through the transportation budget and the revenue sources supporting the budget. In addition, the publication will examine the history of *actual* transportation funding – as opposed to budgeted figures. The publication will also discuss current transportation funding issues.

¹ Gross Domestic Product figure from Bureau of Economic Analysis for 2011; employment data (preliminary) for December 2012 from the Bureau of Labor Statistics.

Michigan's state transportation budget is a good representation of the public resources available for state transportation programs. However, it is not a perfect representation. To start with, the state transportation budget is based on estimated revenue. Actual revenue and expenditures will be different from the budgeted amounts. In addition, there are a number of transportation revenue sources not included in the state budget;² some federal-aid statute and is not included in Gross Appropriations totals in the state budget.² Some federal-aid transportation revenue is granted directly to urban transit agencies and not recognized in state budget; some state statutes not flow through the state transportation budget.³ Significantly locally generated revenue that does not flow through the state transportation budget.

Nonetheless, the state transportation budget is still a good starting point for a discussion of transportation funding; it is the largest source of funding for state transportation programs. Almost all of the federal revenue and almost all of the state revenue available for both state and local transportation funding, it is likely that additional revenue for transportation programs would be raised through state transportation taxes distributed through state appropriations.

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Transportation Budget as a Starting Point

Michigan's state transportation budget is a good representation of the public resources available for state transportation programs. These earmarked funds are not included in appropriation totals subsequent to renamed "Equity Bonuses" – for certain specific programs within the Transportation Economic Development Fund. Section 10(3) of 1951 PA 51 earmarks 31.5% of the categorical federal program formerly known as "Minimum Guarantee" –

Local revenue sources for road and street programs include county millages and county general fund contributions for road programs; township road millages and township general fund contributions for county road programs; and city street road programs; townships and cities contribute general fund improvements programs. Local revenue sources for transit systems include farebox revenue, dedicated transit millages, and municipal general fund contributions.

State Transportation Budget Overview – Revenue

Gross Appropriations in the FY 2012-13 transportation budget total \$3.466 billion.⁴ There are two major fund sources in the budget. Approximately 62% of the appropriated revenue comes from state restricted funds, and approximately 35% from federal aid. See **Figure A**

Gross Appropriations for FY 2012-13, and the relative share of state restricted and federal funds in the budget, are representative of the fifteen-year average for the fiscal years FY 1998-99 through FY 2012-13. See **Figure B**

The state restricted revenue in the transportation budget is primarily from *constitutionally* restricted revenue sources – motor fuel taxes and vehicle registration taxes. In FY 2012-13 these two taxes account for 85.4% of appropriated state restricted revenue. The use of this constitutionally restricted revenue is largely directed by statute – Public Act 51 of 1951 ("Act 51").

State General Fund/General Purpose (GF/GP) revenue has generally not been used as a fund source in the transportation budget. However, the FY 2011-12 and the FY 2012-13 budgets included \$500,000, and \$23.0 million in GF/GP revenue, respectively. In both instances, the GF/GP appropriation was identified as one-time.⁵

See Figures **C1** and **C2** for a breakdown of FY 2012-13 appropriated revenue.

State Transportation Budget Overview – Major Programs

There are three major program areas in the transportation budget: Highway Programs, Public Transportation Programs, and Aeronautics Programs.

Highway Programs support construction and preservation of the state trunkline highway system, and the road and street systems of local road agencies.

Public Transportation Programs provide capital and operating assistance to local public transit agencies, and support for rail freight, rail passenger, and intercity bus passenger programs.

Aeronautics Programs as represented in the budget include appropriations for the federal Airport Improvement Program, a program of capital assistance to eligible airports, as well as support for the Michigan Department of Transportation's Office of Aeronautics. State Aeronautics programs are governed by the State Aeronautics Code of 1945.

See **Figures D1, D2, D3, and D4** for a breakdown of the FY 2012-13 budget by purpose and by major program category, including a breakdown by "state" or "local" designation. As shown in **Figure D3**, almost half of the budget represents funding either distributed directly to local units of government, or for the primary benefit of local units of government.

⁴The FY 2012-13 transportation appropriations were contained in budget bill, House Bill 5365, enacted as Article XVII of 2012 PA 200. The budget was developed from revenue estimates made in February 2012.

⁵There are some other, relatively small, revenue sources in the transportation budget, including funds provided by other state departments (Interdepartmental Grants), as well as local and private revenue. The local revenue appropriated in the budget represents local road agencies' share of certain state trunkline highway construction projects and local transit agencies' share of some transit capital projects. In addition, \$100,000 in private revenue was appropriated in FY 2012-13 as a fund source for rail infrastructure programs.

Summary: Michigan's transportation budget is supported primarily by revenue from state restricted sources (motor fuel taxes and vehicle registration taxes) and by federal aid. Historically, the budget has not included direct General Fund support. The amount available for transportation programs is less than a function of the appropriations process and more a function of available state restricted revenue and federal aid, and the statutory directives of Public Act 51 of 1951.

The next section of this publication will describe how Act 51 governs the distribution of state restricted transportation funds and federal highway funds in the state.

Act 51 and the Distribution of State and Federal Transportation Funding

State restricted Revenue

As previously noted, state restricted revenue represents the largest fund source supporting the transportation budget – \$2.165 billion in FY 2012-13. Of this, the largest share, \$1.865 billion, has as its ultimate source motor fuel taxes and vehicle registration taxes.

Motor fuel and vehicle registration tax revenue is restricted for transportation purposes by Article IX, Section 9 of the 1963 Michigan Constitution.

Those constitutional provisions are implemented through Michigan statute – Public Act 51 of 1951 (Act 51). Revenue from motor fuel taxes and vehicle registration taxes is first credited to the Michigan Transportation Fund (MTF) and then distributed to the following primary recipients in accordance with the provisions of Act 51.

- > To the Comprehensive Transportation Fund (CTF) for public transportation programs, including capital and operating assistance to 79 local public transit systems
- > To the State Trunkline Fund (STF), for construction and preservation of the state trunkline system, and administration of the Michigan Department of Transportation (MDOT)
- > To 83 county road commissions for the preservation of county road systems
- > To 533 cities and villages for the preservation of city and village street systems

Act 51 also earmarks MTF revenue for certain targeted transportation funds and categorical programs: the Transportation Economic Development Fund (TEDF), the rail grade crossing account, and the Local Bridge Fund. See **Figure E**

Federal Revenue

In addition to state restricted revenue, the state transportation budget includes \$1.2 billion in appropriations from federal sources. Except for \$94.1 million appropriated for the federal Airport Improvement Program, the federal funds in the transportation budget represent federal "surface transportation" programs – highway, public transit, and rail programs. Federal surface transportation funds are made available to the state through the multi-year federal-aid authorization programs.

The current federal surface transportation authorization act, signed into law by President Obama on July 6, 2012, is titled *Moving Ahead for Progress in the 21st Century* (MAP-21). MAP-21 authorizes federal highway, transit, and rail programs for a 27-month period ending September 30, 2014.

MAP-21 makes federal funds available to state departments of transportation through three U.S. Department of Transportation (DOT) agencies: the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Railroad Administration (FRA). Federal

- ⁶ The share of federal-aid eligible roads under local road agency jurisdiction is much higher in Michigan than most other states.
- ⁷ For this document, all 83 county road agencies are referred to as "road commissions." Wayne County and Macomb County do not have separate road commissions; county road functions are performed by a department of county government.
- ⁸ Data from Michigan Department of Transportation, Bureau of Transportation Planning, Asset Management Division. VMT data from 2011, bridge data from National Bridge Inventory, February 2013.

See Figure F

of total bridge deck area and 81% of Average Daily Traffic (ADT).
lane expressways, they carry more traffic than local bridges. State trunkline bridges represent 74% highways, with the balance on local roads. Since many of the state trunkline bridges are on multi-highway, only 4,406 (40%) of Michigan's 10,920 bridges (non-culvert) are on state trunkline similarly,

the state's public route miles and 17% of total state VMT.
Cities and villages are responsible for 21,177 miles of municipal streets, representing about 18% of

roads represent 74% of the state's public roads and account for 31% of state VMT.
The state's 83 county road commissions are responsible for 89,469 miles of county roads. County

of the commercial VMT is on the state trunkline system.
Although state trunklines represent only 8% of the state's road miles, they carry approximately 51% of the traffic as represented by Vehicle Miles Traveled (VMT).⁸ The department estimates that 64%

State trunklines include all the interstate highways, plus the "M" and "US" numbered highways.
trunklines are generally the state's heaviest traveled roads, or are roads with a statewide purpose.
The state has jurisdictional responsibility for 9,654 miles of state trunkline highways. State

- 533 incorporated cities and villages
- 83 county road commissions
- State of Michigan (MDOT)

the state's roads and streets:
agencies because in Michigan there are three separate governmental entities with responsibility for
Act 51 allocates state restricted and federal-aid highway funds between the state and local road

Division of Road Jurisdiction

projects under local jurisdiction.⁶
mandates that an average of 25% of most federal-aid highway program funds be set aside for
authority of local road agencies (county road commissions, cities, villages), Section 100 of Act 51
because a significant number of federal-aid eligible roads and streets in Michigan are under the
requirements. However, Act 51 provides some guidance with regard to the use of federal funds.
The allocation of federal-aid highway funds within the state is largely driven by federal program

federal funding developed by the MDOT.
revenue appropriated in the state transportation budget bills is based on estimates of available

Figure F

Michigan Road Jurisdictions					
	Route Miles		Vehicle Miles		
	Miles	% of Total	Traveled	% of Total	
State Trunklines	9,654	8.0%	48.7 billion	51.4%	
County Roads	89,469	74.4%	30.0 billion	31.6%	
City/Village Streets	21,177	17.6%	16.1 billion	17.0%	
Total	120,300	100.0%	94.8 billion	100.0%	

Source: 2011 data from MDOT Bureau of Transportation Planning, Asset Management Division

Michigan Bridges					
	Structures		Deck Area*		Average Daily Traffic
	Miles	% of Total	Meters	% of Total	
State Trunkline	4,406	40.3%	4,619,000	74.2%	73,500,000 81.0%
County Roads	5,674	52.0%	1,132,000	18.2%	12,100,000 13.3%
City and Village	840	7.7%	471,000	7.6%	5,200,000 5.7%
Total	10,920	100%	6,222,000	100%	90,800,000 100%

*Deck area is in square meters.

Source: MDOT Bridge Operation Unit, National Bridge Inventory data as of February 2013.

⁹ The amounts shown for vehicle registrations include revenue from title fees collected under the authority of Section 257.217 of the Michigan Vehicle Code. Although revenue from vehicle title fees does not appear to be constitutionally restricted, title fee revenue has historically been credited to the MTF. Title fees generate approximately \$30.0 million per year for credit to the MTF.

Registration tax revenue peaked in FY 2003-04 at \$978.5 million, although that year was atypical in that it included approximately \$100.0 million in one-time revenue from a change in trailer registrations. Average registration tax revenue for the last five fiscal years, FY 2007-08 through FY 2011-12, was \$866.2 million.⁹

Vehicle Registration Taxes are established under Sections 801 through 810 of the Michigan Vehicle Code. These taxes are collected by the Michigan Secretary of State when people obtain new registration plates or renew plate registrations.

Fuel Tax Act (1980 PA 119).
Motor fuel taxes are established under the Motor Fuel Tax Act (2000 PA 403) and the Motor Carrier

approximately \$8.5 million per penny of tax. The motor fuel tax on diesel motor fuel is 15 cents per gallon. Over the last five years, tax revenue related to diesel fuel has averaged approximately \$126.0 million. It currently generates approximately \$8.5 million per penny of tax.

The motor fuel tax on gasoline was last raised in 1997 when it was increased from 15 cents to 19 cents per gallon. The 19-cent per gallon tax on gasoline currently generates approximately \$43.1 million per year since. Over the last five fiscal years, gasoline tax revenue declined \$837.4 million per year since. Gasoline tax revenue for the FY 2011-12 was \$818.8 million, the lowest since FY 1996-97,

Revenue from the motor fuel tax on gasoline peaked in FY 2001-02 at \$938.9 million and has declined every year since. Over the last five fiscal years, gasoline tax revenue averaged \$837.4 million. Gasoline tax revenue for the FY 2011-12 was \$818.8 million, the lowest since FY 1996-97, prior to the last gas tax rate increase.

Motor Fuel Taxes are excise taxes – a per gallon tax not based on price. The tax on gasoline is 19 cents per gallon whether the pump price is \$2.50 a gallon or \$4.00 per gallon. As people drive less and purchase more fuel-efficient cars, the tax generates less revenue.

The long-term decline in MTF revenue is primarily due to weakness in both of the main contributors to MTF revenue, motor fuel taxes and vehicle registration taxes.

Average MTF revenue for the last five fiscal years (FY 2007-08 through FY 2011-12) is \$1.855 billion, less than the average MTF revenue for FY 1998-99 and FY 1999-2000, \$1.869 billion.

Stagnant MTF Revenue, Issue #1, After peaking in FY 2003-04 at \$2.065 billion, MTF revenue declined each of the next five years, falling to \$1.839 billion in FY 2008-09. MTF revenue increased each of the next three fiscal years, still falling to \$1.856 billion for FY 2011-12. Actual MTF revenue for FY 2011-12 was \$1.856 billion, still

There are in fact a number of registration taxes. Sections 801 through 810 of the Michigan Vehicle Code establish a number of different registration tax categories, with different tax bases and different tax rates. The applicable tax for any vehicle is a function of a number of factors – vehicle model year, the list price of the vehicle, the weight of the vehicle, the use of the vehicle, and, in some cases, some characteristic of the vehicle owner.

The registration tax on cars and light trucks is based on the manufacturer's list price of the vehicle. Revenue from this ad valorem tax has tended to increase as vehicle list prices increased. The registration tax on certain commercial trucks is based on elected gross vehicle weight.

The complexity of the current registration tax system makes it hard to estimate the impact of any proposed changes to tax rates. The complexity also increases opportunities for tax-avoidance, increases administrative errors, and increases the administrative costs of collecting the tax.¹⁰

Impact of Reduced MTF Revenue – Reduced MTF revenue results in reduced amounts credited to recipients of MTF funding – the STF, local road agencies, and public transportation programs. For some local road agencies, reduction in total MTF revenue has been aggravated by the effects of the internal MTF distribution formula, i.e. the provisions of Sections 12 and 13 of Act 51 that allocate MTF revenue among the 83 county road commissions and 533 cities and villages, respectively.

While the total MTF distribution to local road agencies in FY 2011-12 was \$48.7 million less than it was in FY 2006-07, 163 of the 616 road agencies, approximately 26%, received more in MTF funding than they had five years previously. Similarly, the FY 2011-12 MTF distribution to local road agencies was \$13.4 million less than FY 2001-02, yet 325 agencies, over 53%, received more in MTF funding than they had ten years earlier. To the extent that some local agencies receive proportionately more of the MTF distribution, other agencies receive proportionately less.

The impact of the internal formula is most apparent when the FY 2011-12 MTF distribution is compared to the FY 1996-97 distribution, the year prior to the full impact of the 1997 revenue gas tax increase. The total MTF distribution in FY 2011-12 was \$172.4 million more than the FY 1996-97 distribution, but five road agencies received less from the MTF than they had fifteen years previously; Wayne County received \$600,000 less; the city of Detroit received \$305,664 less.¹¹

Ability to Match Federal Funds, Revenue Issue #2,

While there has *not* been a decline in the amount federal aid available to the state, there has been recent concern about the state's ability to provide matching funds. Most federal-aid highway programs, including the largest categorical programs, require a 20% non-federal match. For state trunkline projects under the jurisdiction of the Michigan Department of Transportation, the non-federal matching funds are typically provided from the STF.

¹⁰ See Office of Auditor General Audit 231-0200-08, May 2009, Performance Audit of the Michigan Secretary of State, Cash Receipts and Branch Office Customer Service. http://audgen.michigan.gov/finalpdfs/08_09/r231020008.pdf

¹¹ In FY 1996-97, Wayne County received 11.9% of the MTF distribution to county road commissions; in FY 2011-12, Wayne County received 9.7%. In FY 1996-97, the MTF distribution to all the road agencies in Wayne County, both county government and all the cities and villages within the county, represented 19.4% of the total MTF distribution to local road agencies; in FY 2011-12, Wayne County road agencies received only 16.7% of the MTF distribution to local road agencies.

Note that the discussion of a potential shortfall in matching funds for federal-aid highway funds relates to the state trunkline program only. Representatives of local road agencies report that they are having difficulty providing matching funds for local federal-aid programs. The amount of the local shortfall is harder to quantify as compared to MDOT's trunkline program.

As a point of reference, the federal stimulus program provided approximately \$630.0 million in FY 2008-09, additional highway program funding for state trunkline programs over three years, beginning in FY 2013-14, the annual shortfall in matching funds will be between \$90.0 million and \$115.0 million, resulting in a potential annual loss of \$500.0 million in federal aid.

The state's ability to match all available federal-aid highway funds remains a long-term problem. The department's 2013-2017 Five-Year Transportation Program indicates that, beginning in FY 2013-14, the annual shortfall in matching funds will be between \$90.0 million and \$115.0 million, resulting in a potential annual loss of \$500.0 million in federal aid.

The potential loss of federal funds, and the identification of state sources of matching funds, was the focus of FY 2010-11, FY 2011-12, and FY 2012-13 budget deliberations. The estimated shortfall in FY 2010-11 was \$84.0 million; the estimated shortfall associated with for FY 2011-12 was \$147.0 million. In both fiscal years, the shortfall, as a budget issue, was resolved primarily through short-term or one-time savings or fund shifts, including reductions in state trunkline maintenance, deferral of capital outlays projects, the use of toll credits, and the sale of \$40.0 million in additional transportation revenue notes or bonds. The shortfall in FY 2012-13 was resolved through an amendment to the General Sales Tax Act, 2012 PA 225, to redirect up to \$100.0 million of general fund revenue to the STF for purposes of matching federal-aid highway funds. This sales tax redirection is for a single fiscal year only, FY 2012-13.

Preservation of the State Infrastructure, Revenue Issue #3

While there is concern about the long-term decline in the primary state source of dedicated transportation revenue (motor fuel taxes and vehicle registration taxes), and the immediate problem of matching federal revenue, the real question is whether baseline levels of state and federal revenues are sufficient to achieve statewide transportation goals.

Performance Measure – System Preservation

In 1997, the State Transportation Commission adopted pavement and bridge condition performance goals and measures for the state trunkline system. The shorthand description of the pavement goal is that 90% of state trunkline pavement be in "good" condition by 2007. The department's classification of pavement as "good" or "poor" is based on a Remaining Service Life (RSL) model. Similar goals were established for state trunkline bridges.

The department uses an asset management process to identify which treatments to use at the optimal time to best preserve pavement. For example, the department may use capital preventive maintenance treatments to extend pavement life rather than waiting until pavements require more extensive and expensive reconstruction. The department's asset management process helps guide investments in order to preserve pavement in good condition and to prevent pavement from sliding into a poor condition that is more expensive to fix.

The department met its pavement performance goal in 2007 and was able to sustain pavement condition goals through 2010. The department met the pavement performance goal in part by "front-loading" the reconstruction program through bonding. However, debt service payments reduce the amount of revenue available for the highway program in later years. Additional revenue provided by the federal stimulus program, beginning in FY 2008-09, also helped the department sustain the pavement condition at stated goals.

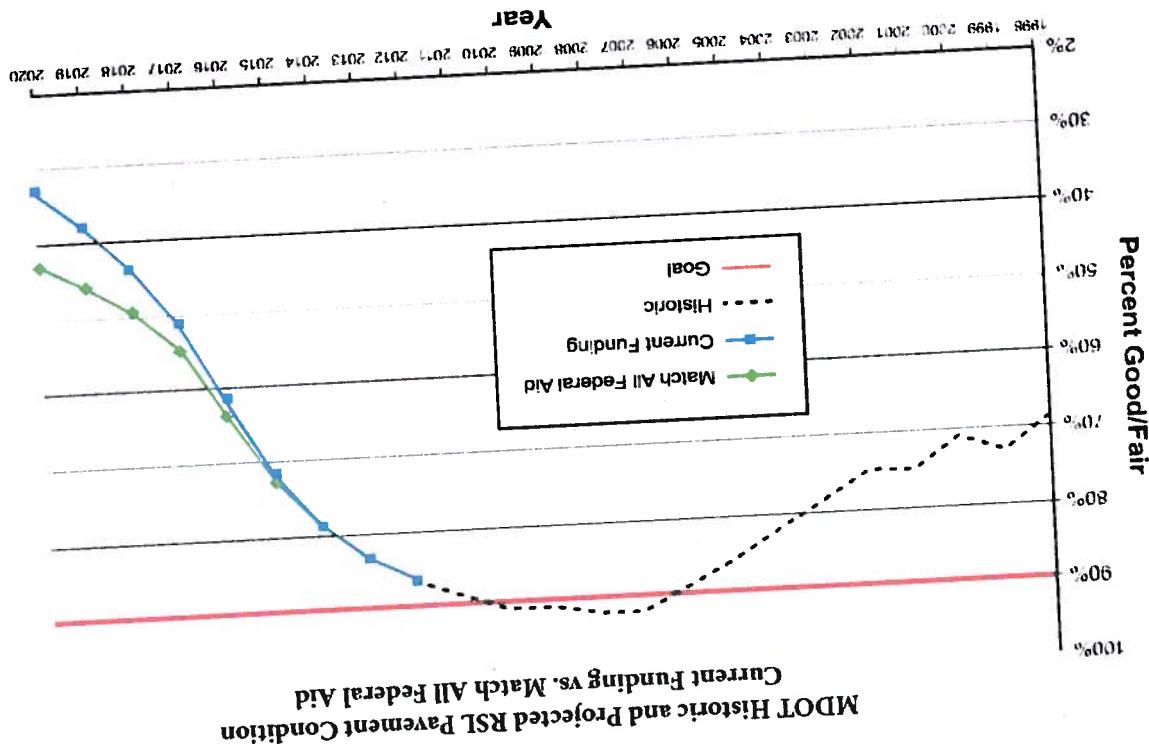
Based on its pavement performance models, the department will not be able to sustain pavement condition at current levels of investment. The department anticipates that pavement condition will start to deteriorate faster than it can keep up with preservation.

This additional revenue is only related to preservation of the existing highway infrastructure and does not include additional funds for other transportation goals, such as congestion relief, safety improvements, or improvements to the public transportation facilities or operations.

(\$66.0 million on the state trunkline system and \$31.0 million on the local road system).¹² Based on these pavement and bridge performance models, the total additional annual revenue needed to achieve and sustain pavement and bridge preservation goals on both the state trunkline system and \$1.141 billion on the local road system, and \$97.0 million for bridge preservation systems is \$2.155 billion, \$2.058 billion for pavement preservation (\$917.0 on the state trunkline system and \$1.141 billion on the local road system), and an additional \$411.0 million for local roads not eligible for federal aid, and an additional \$31.0 million for local bridge preservation.

In addition to state trunkline pavement and bridge performance goals, the department's asset management unit has modeled the additional revenue needed to achieve pavement and bridge preservation goals on the local road system. Those models concluded that an additional \$730.0 million would be needed for local roads on the federal-aid system, an additional \$411.0 million for local roads not eligible for federal aid, and an additional \$31.0 million for local bridge preservation goals on the local road system. The federal-aid system is \$917.0 million. The additional revenue needed to meet and maintain state trunkline bridge annual additional revenue needed to preserve pavement condition on the state trunkline system is \$917.0 million. According to pavement condition models, and estimated pavement preservation costs, the average preservation goals is \$66.0 million.

Source: Michigan Department of Transportation, 2013-2017 Five-Year Transportation Program.



These reports assume that the additional revenue would be available starting in FY 2012-13. These publications are referred to as the "Olson Reports" after the workgroup chairman, former State Representative Rick Olson. The presentation's Workgroup on Transportation Fundraising dated September 19, 2011, and a 2012 update dated March 22, 2012.

Represents House Fiscal Agency analysis and the estimates of additional revenue are summarized in a report of the House of Representatives Workgroup on Transportation Fundraising dated September 19, 2011, and a 2012 update dated March 22, 2012.